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ABSTRACT

A Florida task force investigated the educational levels of the state's elderly population. Data collection included the construction of statistical summaries, examination of existing documents (including a prior study of education and the elderly), and a review of the literature on aging. The following information was gained from the study: a profile of the educational levels and other demographic characteristics of the elderly population studied; the relationship between educational attainment and the probability of impaired literacy among older Floridians; the impact of low educational levels on the elderly; and policy and programmatic recommendations for improving the status of elderly education. Some of the findings were as follows: (1) compared to other states, older Floridians are relatively well educated, but because of the size of the elderly population, the state has one of the largest groups of elderly residents with low educational levels in the country; (2) 60 percent of Floridians who have low educational levels are over the age of 60; (3) Floridians with higher levels of education have fewer incidences of disabilities; and (4) illiterate elderly persons are disadvantaged in their recovery from acquired communication disorders such as hearing impairments. The study urged that the state make combating illiteracy in the elderly a top priority and increase literacy education efforts among them. (Contains 32 references and 14 tables.) (KC)

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# The Unfinished Business of Learning

Since 1900, the percentage of Americans 65+ has ... than tripled. • The number of Americans 65+ ncreased over 10 times since 1900. • The rapid increase in the older population is cted between the years 2010 and 2030. • By , the number of older persons will have more doubled since 1990. • Minority populations are projected to represent 25% population in 2030. • In 1992, ab persons 65+ lived in nine states. • 2 million. • The averag 65+ on the 1992 Natio below all other age group half of Florida's elderly ( age 65 and older) population is expected to be 75 years of age and older. • Of all the persons in the history of the world who have lived to age 65, two-thirds are alive today. • As a group, older citizens below the are grossly undereducated. • Older F one or more disabilities hav signif years of schooling than older Floridians without disabilities. • Better educated older persons are able to work longer and are likely to be self-employed. • Lower-educated older persons are sicker, and are less knowledgeable about preventive health care services. • Older persons who are illiterate are less likely to be homeowners and are, therefore, more likely to occupy physically deficient dwellings. • Education is currency, recognized as the basis for enrichment of human life. • Of Floridians who have low educational levels, 60% are aged 60 or older. • The population of 60+ Floridians is projected to grow by 57% from 1990 to 2010.

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TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

## The Unfinished Business of Learning

*"I started to school when I was nine. There was one teacher for all the grades. Eight months out of the year I stayed home and worked on the farm."*

**A generation that rebuilt America after two world wars and the Great Depression now struggles to survive in a world that has become increasingly complex, even for those educated to it.**

*"I could only go to school four years. I did not have any books because we were too poor to buy them. My mama would try to teach us our letters from the Bible."*

**Societal rejection of the old and poor bespeaks its disregard for their worth. Let us value the richness of life possessed by those who have lived it longest.**

*"The school was three miles from our house. Most folks didn't have cars to ride in. When I did go to school, I'd get up at dawn to milk the cows. As I got bigger, they needed me to do the bigger chores, so I just quit going."*

**Education is currency, recognized as the basis for success and enrichment of human life.**



## What is the Impact on Older Floridians of Being Undereducated ?

Compared to other states, older Floridians are relatively well-educated. However, because of the size of the state's older population, Florida contains one of the largest groups of elderly residents with low educational levels in the country. Over half a million (505,404) Floridians aged 60 and older have completed eight or fewer years of school.

Although individuals aged 60 and older represent 24% of Florida's total population and 34% of adult Floridians (aged 25 and older), older Floridians are dramatically over represented among those who are poorly educated. Of Floridians who have low educational levels, 60% are over the age of 60.

A study conducted by the FIU Southeast Florida Center on Aging reported "...education showed the strongest relationship to functional impairment (inability to manage the routine tasks of daily living) followed by age and income" among Florida's aging population.

A National Institute on Aging study reached a similar conclusion: " Level of educational attainment, a measure of socioeconomic status, was found to have a large impact on both total life expectancy and active (disability-free) life expectancy. It also found, "Education had a substantially greater impact on life expectancy than race."

Older Floridians with one or more disabilities have significantly fewer years of schooling than older Floridians without disabilities. For older Floridians, incidence of disability decreases as the years of schooling increase.

A study of 126 application forms and informational documents used by such federal programs as Social Security, Medicare, public assistance, and food stamps revealed that only 2 percent had readability levels below the ninth grade. Yet, a study on the underutilization of Supplemental Security Income (SSI) found that among poor, older people who may be eligible for SSI, less than half ever applied for benefits.

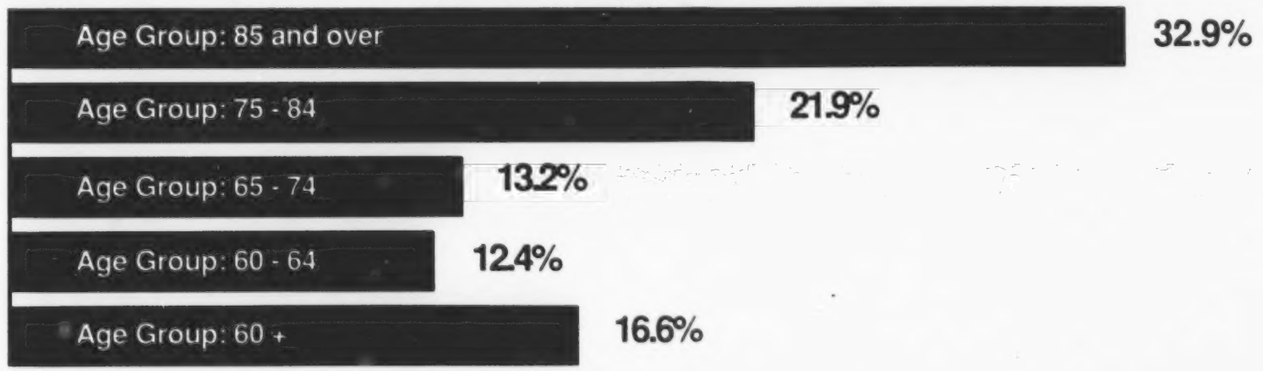
The likelihood of physical viability and longevity is associated with higher levels of education. Older persons with lower educational levels are sicker and are less knowledgeable about preventive health care services.

Illiterate elderly persons are disadvantaged in their recovery from acquired communication disorders such as hearing impairments, aphasia, or laryngectomies because visual and auditory means of therapy and successful outcomes of rehabilitation are more limited with impaired reading and writing skills.

A 1989 national survey of the older population showed a strong correlation between lower educational attainment and the prevalence of serious mental illness.

The responsibility of the informal caregiving network is heightened when caregiving is complicated by greater dependence engendered by the combined effects of illness, immobility and low educational levels. Diagnosis, health care, and treatment are adversely affected by the low-educated older client's inability to follow written directions, fill out forms, or record events or feelings which may facilitate caregiving.

**Percentage of Florida's Older Population with Eight or Fewer Years of Schooling, 1990**




*Targeting older Floridians for educational and literacy services and programs makes sense and saves dollars. Florida must create a prompt and effective response to the educational needs of those citizens who continue to contribute so much to our lives.*

***I. PROCLAIM ELDER ILLITERACY A SERIOUS THREAT TO THE INDEPENDENCE, SOUND PHYSICAL AND MENTAL HEALTH, ECONOMIC WELL-BEING AND OVERALL QUALITY OF LIFE OF OLDER FLORIDIANS.***

•Develop public support for literacy programs for all ages.

•Identify low educational levels as a threat to independence and successful health promotion and wellness, particularly in older adults.

•Target health and social service policymakers and providers and inform them of this threat..

***II. APPLY THE ENTIRE RANGE OF STATE POWERS AND FUNCTIONS TO REDUCE ILLITERACY RATES AMONG THE OLD.***

•Target specific, existing resources and programs to ensure access to learning by older individuals.

• Allocate at least 60% of literacy funding to older adults, who represent 60% of persons with low literacy levels.

• Sponsor studies or other fact-finding activities to identify poorly educated older people and ways to best assist them.

•Design measures to define adult literacy that adhere less to school grades and more toward social roles.

•Sponsor educational activities to inform government officials at all levels.

***III. ENCOURAGE HEALTH AND SOCIAL SERVICE PROVIDERS TO ASSESS LITERACY NEEDS OF OLDER ADULTS.***

•Ensure that state-funded agencies providing elderly services include literacy development as a direct or indirect service to older clients.

•Require state agencies providing public assistance to offer services to increase literacy levels.

•Influence service eligibility policies to assist older adults with low literacy levels to prepare for gainful employment and improved quality of life.

•Educate health and social service professionals on signs of illiteracy, and engage their support in diagnosis, referral and program development.

•Challenge senior centers to include literacy as a provided service.

•Expand nursing home requirements to include literacy services.

***IV. SUPPORT LOCAL COMMUNITY EFFORTS TO INCREASE LITERACY SKILLS.***

•Promote networking and coalition-building.

Invest money and other resources in literacy programs.

•Develop appropriate curriculum and train staff and volunteers to work effectively with older adults.

•Engage in participatory planning with older adults.

•Refine intake and assessment planning and procedures to assess literacy needs and refer older persons to literacy providers.

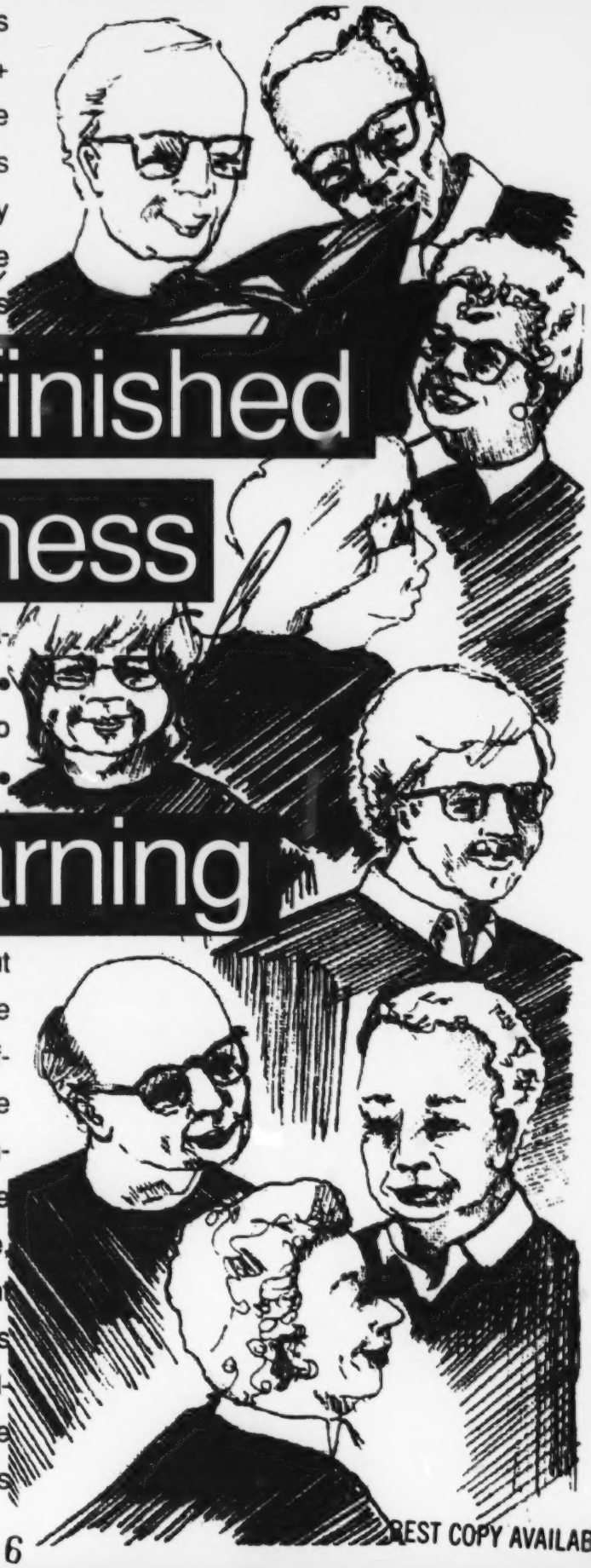
A Call for Action
The Unfinished Business of Learning

*This publication was produced by the Florida Council on Aging and the Florida Department of Education, Commissioner Doug Jamerson, and edited by Margaret Lynn Duggar and Associates. For additional copies of this Executive Summary, or for a complete copy of the report, "The Unfinished Business of Learning," please write the FCOA office at 1018 Thomasville Road., Box C-2, Tallahassee, Florida 32303, or call (904) 222-8877.*

Florida Council on Aging
1018 Thomasville Road Box C-2
Tallahassee, FL 32303

# The Unfinished Business of Learning

Since 1900, the percentage of Americans 65+ has more than tripled. • The number of Americans 65+ has increased over 10 times since 1900. • The most rapid increase in the older population is expected between the years 2010 and 2030. • By 2030, the number of older persons will have more than doubled since 1990. • Minority populations are projected to represent 25% population in 2030. • In 1992, ab persons 65+ lived in nine states. • 2 million. • The averag 65+ on the 1992 Natio below all other age group half of Florida's elderly ( age 65 and older) population is expected to be 75 years of age and older. • Of all the persons in the history of the world who have lived to age 65, two-thirds are alive today. • As a group, older citizens below the are grossly undereducated. • Older F one or more disabilities hav signif years of schooling than older Floridians without disabilities. • Better educated older persons are able to work longer and are likely to be self-employed. • Lower-educated older persons are sicker, and are less knowledgeable about preventive health care services. • Older persons who are illiterate are less likely to be homeowners and are, therefore, more likely to occupy physically deficient dwellings. • Education is currency, recognized as the basis for enrichment of human life. • Of Floridians who have low educational levels, 60% are aged 60 or older. • The population of 60+ Floridians is projected to grow by 57% from 1990 to 2010.



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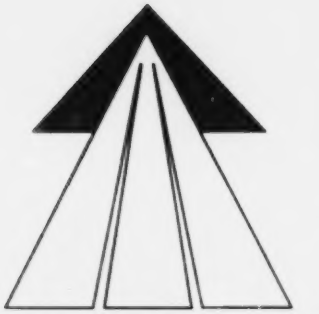


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*The Unfinished Business of Learning is funded by adult education which is supported 100% by Federal funds through the Department of Education, State of Florida, Doug Jamerson, Commissioner.*

Dear Friends:

Elder education in Florida benefits citizens of all ages. It enriches the lives of families through intergenerational exchange and serves communities by contributing valuable human resources. We each gain from the lesson of lifelong education when an older adult continues to learn.

The benefits of elder education are many, and we at the Department of Education want to continuously update our understanding of the need for adult education and the societal impacts of educational deficiencies. To bring all current research and 1990 Census data together into one powerful format, this special report produced by the Florida Council on Aging clearly defines this important issue. I am proud to present you with *The Unfinished Business of Learning*-- a comprehensive needs analysis of elder education in Florida today.

Now that the need for elder education, as well as the costly and devastating results of low education levels of older Floridians have been clearly documented, I urge you to join me to continue and improve community and statewide programming. We must do so because it is so important to the independence and well-being of older Floridians, because it is cost-effective and because it is the right thing to do.

Sincerely,

Doug Jamerson

Doug Jamerson
Commissioner of Education

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# The Unfinished Business of Learning

## Introduction

*"I started to school when I was nine. There was one teacher for all the grades. Eight months out of the year I stayed home and worked on the farm."*

*"I could only go to school four years. I did not have any books because we were too poor to buy them. My mama would try to teach us our letters from the Bible."*

*"The school was three miles from our house. Most folks didn't have cars to ride in. When I did go to school, I'd get up at dawn to milk the cows. As I got bigger, they needed me to do the bigger chores, so I just quit going."*

The Unfinished Business of Learning... It should surprise no one that six, seven, even eight decades later these individuals find themselves needing to tend to the unfinished business of learning. What this compelling report describes is the tremendous personal cost of not doing so.

If a single word could describe the essence of the last fifty years, it would be "CHANGE." Who would have thought fifty years ago that Florida, once predominantly rural and agricultural, would guide the nation into the space age, subsequently growing into predominance in so many areas of endeavor? Florida's growth in the last thirty years can only be called phenomenal. The vitality of the economy and population is a source of pride to all who have been part of the state's growth. Yet, along with growth on this scale must come complexities on the same scale. And, since growth has everything to do with people and their needs, Florida's decision-makers have been faced with a Herculean task to address the ever-shifting needs, including the educational needs, of a population of immense diversity.

The demographic changes of the past thirty years have resulted in Florida having a higher concentration of elderly residents than any other state. A major consequence of these past

**TABLE 1**

**NUMBER OF RESIDENTS IN FLORIDA AT RISK OF BEING ILLITERATE BY AGE, 1990**

| | Educational Attainment (School Years Completed) | | | | | |
|---|---|---|---|---|---|---|
| **Age Group** | **0 - 4** | **5 - 8** | **0-8** | **9 - 12** | **13 +** | **Total*** |
| 25-49 | 67,553 | 141,737 | 209,290 | 1,952,393 | 2,476,488 | **4,638,171** |
| 50-59 | 35,647 | 93,123 | 128,770 | 582,980 | 479,858 | **1,191,608** |
| 60-64 | 20,557 | 63,851 | 84,408 | 355,508 | 241,786 | **681,702** |
| 65-74 | 44,147 | 136,885 | 181,032 | 734,467 | 454,705 | **1,370,204** |
| 75-84 | 39,002 | 133,668 | 172,670 | 393,361 | 222,666 | **788,697** |
| 85 + | 18,275 | 49,019 | 67,294 | 88,751 | 48,239 | **204,284** |
| **60 and over** | **121,981** | **383,423** | **505,404** | **1,572,087** | **967,396** | **3,044,887** |
| 65 and over | 101,424 | 319,572 | 420,996 | 1,216,579 | 725,610 | **2,363,185** |

** The 0-8 "school years completed" category (the sum of 0-4 and 5-8 categories) is not included in Total.*

trends will be the greatly increased presence of a future elderly population that is top heavy with those chronologically "very old." Population projections make clear that by the year 2005, over half (almost 1.7 million) of its elderly (age 65 and older) population is expected to be 75 years of age and older. A study conducted by Dr. Stephen Golant of the University of Florida found that, in terms of percentage of population as compared to other states, Florida's older population is relatively well-educated. While the statistics paint a positive picture at first glance, the real numbers tell a different, even alarming, story.

> The reality is that Florida contains one of the largest groups of poorly educated elderly residents in the country because of the large absolute size of the state's elderly population (Suzman, Willis, and Manton, 1992).

Over half a million Floridians over the age of 60 have completed eighth grade or less. Although individuals aged 60 and older represent 24% of Florida's total population and 34% of adult Floridians (aged 25 and older), older Floridians are dramatically over represented among those who are poorly educated. Of Floridians who have low educational levels, 60% are over the age of 60. (See Tables 1 and 2, Number and Percentage of Residents in Florida at Risk of Being Illiterate By Age, 1990. Also see Figures 1 and 2.)

Through a multiplicity of programs targeted to younger adults, Florida has historically demonstrated a commitment to address the educational and literacy deficits of its citizenry. When manifested among the elderly, however, these deficits are particularly insidious and costly. Illiteracy has a tragic impact on elders, preventing them from contributing fully to their community and making

**TABLE 2**

**PERCENTAGE OF RESIDENTS IN FLORIDA AT RISK OF BEING ILLITERATE BY AGE , 1990**

| | Educational Attainment (School Years Completed) | | | | | |
|---|---|---|---|---|---|---|
| **Age Group** | **0 - 4** | **5 - 8** | **0-8** | **9 - 12** | **13 +** | **Total*** |
| 25-49 | 1.5 | 3.1 | 4.5 | 42.1 | 53.4 | 100.0 |
| 50-59 | 3.0 | 7.8 | 10.8 | 48.9 | 40.3 | 100.0 |
| 60-64 | 3.0 | 9.4 | 12.4 | 52.2 | 35.5 | 100.0 |
| 65-74 | 3.2 | 10.0 | 13.2 | 53.6 | 33.2 | 100.0 |
| 75-84 | 4.9 | 16.9 | 21.9 | 49.9 | 28.2 | 100.0 |
| 85 + | 8.9 | 24.0 | 32.9 | 43.4 | 23.6 | 100.0 |
| **60 and over** | **4.0** | **12.6** | **16.6** | **51.6** | **31.8** | **100.0** |
| 65 and over | 4.3 | 13.5 | 17.8 | 51.5 | 30.7 | 100.0 |

**The 0-8 "school years completed" category (the sum of 0-4 and 5-8 categories is not included in Total.*

inaccessible the very services designed to serve their needs. Other consequences are social isolation, poorer health due to lack of access to nutritional and health information, increased financial dependence, and, in general, diminished ability to remain independent as aging occurs.

## Overview

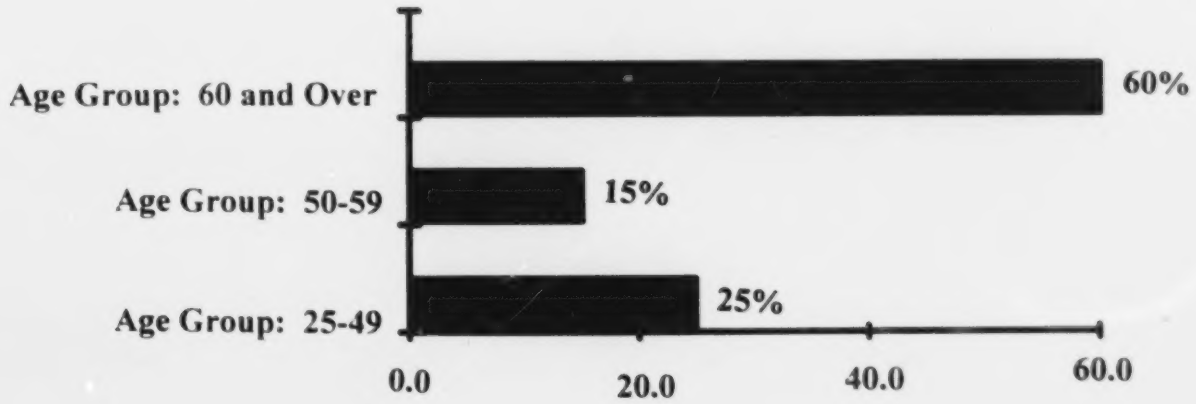
"Do you expect anyone to be able to function with what he learned over 75 years ago when there was no computer, telephones had just appeared, there were few cars, faxes were unheard of, banking was done in person, and we lived a much less complicated life?" (Testimony of a 90-year-old man at a legislative hearing.)

A generation that rebuilt America after two world wars and the Great Depression now struggles to survive in a world that has become increasingly complex, even for those educated to it. Today's older citizens are the first generation with large numbers achieving such longevity. In fact, of all the persons in the history of the world who have lived to age 65, two-thirds are alive today. This older generation had no role models for successful aging--their parents were all born around 1900 when the life expectancy was 47 years.

The older population of today gained much of its formal education early in this century when educational opportunities were vastly more limited. Often education was interrupted by war or the family's economic demands. This lower educational level impacts many areas of an older person's life. Often, the greatest impact is financial, but the older person's independence and even life expectancy may be seriously threatened as well. A study conducted by the Florida International University Southeast Florida Center on Aging reported that "...education showed the strongest relationship to functional impairment (inabil-

**Figure 1**

**Percentage of Adults in Florida with Eight or Fewer Years of Schooling, 1990**



ity to manage the routine tasks of daily living) followed by age and income" among Florida's aging population. A National Institute on Aging study reached a similar conclusion: "Level of educational attainment, a measure of socioeconomic status, was found to have a large impact on both total life expectancy and active (disability-free) life expectancy." It also found, *"Education had a substantially greater impact on life expectancy than race."*

> "If research found a way to delay by only one month an elderly person's entrance into a nursing home, the nation could save $3 billion a year."
>
> Julius Krevans, Institute of Medicine. (quoted in the New Orleans Times-Picayune.)

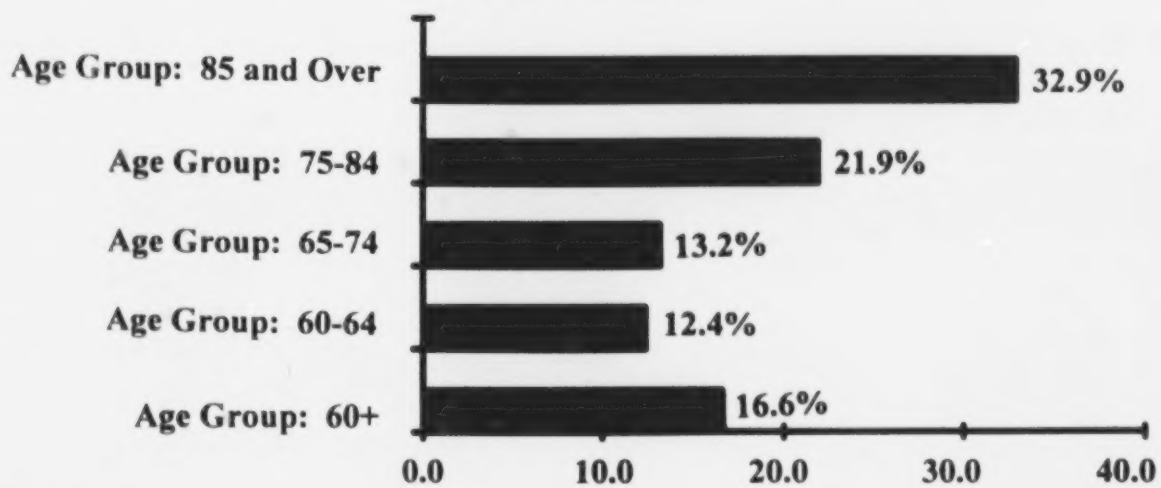
The impact of "functional impairment" due to low levels of literacy among the elderly is far too costly in human and economic terms to ignore any longer. Consider the following:

● Elder Update, published by the Florida Department of Elder Affairs (Sept. 1993), "...it costs the state of Florida on average $2,000 per year to care for an elder who is still living at home, while the annual per person average for nursing home care is $26,000." Increased levels of daily functioning translate to increased levels of independence. The key to increased levels of functioning is increased literacy.

● According to the Workforce 2000 report, by the year 2000 there will be more work to do in the American economy than there will be workers to do it: "an unprecedented shortage of workers." This will open a window of opportunity for groups who traditionally have not been in the mainstream of the labor market. Current literacy programs geared to the special needs of older learners could provide the key to greater financial independence for the aging as they learn new skills. This would both stimulate Florida's economy and reduce the need

**Figure 2**

**Percentage of Florida's Older Population with Eight or Fewer Years of Schooling, 1990**



for governmental subsistence moneys by those still desiring to work.

● The contribution of elder volunteers in such programs as the Retired Senior Volunteer Program, which provides opportunities for retired persons to meet community needs; Foster Grandparents, which provides opportunities for older persons to serve special needs children; and the Senior Companion Program, which provides opportunities for older persons to serve the frail elderly, is inestimable in terms of positive impact and cost savings to the community. Increased functional literacy among the healthy elderly can change a purposeless existence into a purposeful one, vital to the mental, emotional, and physical health of every human being. In economic terms, every contribution made by a volunteer saves untold dollars for local agencies. Conversely, wasting the opportunity to tap the talents of the undereducated elder is costly to both the individual and the community.

According to the Special Committee on Aging of the United States Senate, there are currently estimated to be 3.2 million older Americans known to be taking care of their children's children.

● Family disruption due to substance abuse, violence, divorce, and the AIDS epidemic have made increased levels of elder literacy vital to the American social fabric. There is no way to estimate how many of these remade families need help and do not know about potential sources of assistance. In such cases, elder illiteracy negatively impacts both old and young.

For the purposes of this report, elder illiteracy has been defined as a general deficit in verbal and reading skills which prevents older citizens from optimal functioning in their daily lives. Clearly, there is much to ponder as this issue is examined. This report is a call for sorely needed leadership from all sectors of state government and private enterprise. The vast number of educationally disadvantaged elderly in Florida presents an untenable situation. This study shows the current state of affairs to be socially and economically disadvantageous and humanly debilitating. If the gap between the current reality and a more desirable state of affairs is to be closed, interested and able people must, first of all, heed the messages contained in this report. Their attentiveness to these messages must be accompanied by strong resolve to act upon the recommendations which can be accomplished in the short term and to facilitate the long-range implementation of those that are not amenable to short-term action.

In order to foster independence, health promotion and other health initiatives, there must be a Call to Action. With this, advocates for older persons must join this compelling statewide effort. Literacy providers must join hands with aging and other service delivery networks to identify and serve this important, growing population of illiterate individuals.

Immediately, state and local officials must proclaim elder illiteracy a serious threat to the independence, sound physical and mental health, economic well-being and overall quality of life of older Floridians. The governor and Legislators can give this issue high priority in their speeches, public appearances, and in their legislative actions. The Commissioner of Education can lead in articulating the positive relationship between upgrading the educational levels of older citizens and the realization of an improved social and economic climate. The Florida Department of

Elder Affairs, Area Agencies on Aging and local aging services providers must embrace the literacy needs of older Floridians, recognizing that the first step in improving the quality of life among these individuals is identifying low literacy levels and improving literacy skills. Literacy programs must designate older persons as a priority target group and develop outreach, literacy curriculum and programs to effectively meet their needs. Health and social service providers must join in eliminating low literacy levels, which are a barrier to successful prevention, health promotion and medical treatment regimens.

More than 500,000 Floridians over the age of 60 have eight years or less of formal schooling.

Societal rejection of the old and poor bespeaks its disregard for their worth. Let us value the richness of life possessed by those who have lived it longest; let us demonstrate our esteem for it by our prompt response to the educational needs of the citizens who have contributed so much to our lives.

## Developing This Report

The convening of a task force to investigate educational levels of Florida's elderly population by the Florida Council on Aging and the Florida Department of Education was the springboard for a series of activities which culminated in this report. Task force members represented state agencies, educational institutions, interest groups, and concerned individuals, each of whom was a data source for particular constituencies and a resource for connecting with others who could inform the study. Data gathering included the construction of statistical summaries, examination of existing documents, including a prior study of education and the elderly, and a review of the literature on aging. The remainder of the report is organized as follows:

- Profile of the educational levels and other demographic characteristics of the elderly population studied
- The relationship between educational attainment and the probability of impaired literacy among older Floridians
- The impact of low educational levels on the elderly
- Policy and programmatic recommendations for improving the status of elderly education
- Bibliography
- Appendices

## A Profile Of Educational Levels and Associated Demographics in Florida's Elderly Population

The elderly population studied, defined as those aged 60 and above, were identified as having low levels of educational attainment if they had eight or fewer years of education. This group was further divided into "young-old" (age range 60 - 74) and "old-old" (age range 75+) and was studied within a framework of other demographic variables: age, gender, race, ethnic (Hispanic) background, living arrangements, economic sta-

tus, mobility, personal or self-care limitations, dwelling circumstance, the presence of a telephone in the household, and place of birth (definitions of variable descriptions appear in the Appendix). Using data based on the 1990 U.S. Decennial Census, a profile of educational attainment and associated demographic variables emerges. (For a detailed discussion of data sources, see the Appendix.) In all cases, the percentages stated are not intended to imply causality; they do, however, demonstrate correlation.

Throughout this report, tables show both the number and percentage of persons in a particular subgroup with low education. This can be an important distinction. While the percentage of the subgroup may appear small, the sheer numbers of Florida's older population emphasize the impact. For example, just 2% of Florida's 60+ population represents almost 61,000 persons- a large group to be targeted programmatically.

## Educational Levels

More than 500,000 Floridians over the age of 60 have critically low levels of educational attainment. The extent of formal schooling for this group is eight or fewer years; however, 24% of these older persons have four or fewer years of schooling. These low educational levels are especially prevalent among the 75+ group. Twenty-two percent of persons aged 75-84 have eight or fewer years of school, compared to 33% of persons aged 85+. This segment of the subgroup with low education levels comprises nearly 240,000 persons. (See Table 3a.)

## Economic Status

As a group, older citizens below the poverty level are grossly undereducated. More than a third of poor Floridians age 60+ have no more than eight years of schooling and over 12% of

**Table 3A**
**ABSOLUTE AND RELATIVE SIZE OF AGE 60 AND OLDER SUBGROUPS OF FLORIDA RESIDENTS AT RISK OF BEING ILLITERATE, 1990**

| Age 60 and Older Subgroup | Total Number in Subgroup | Number in Subgroup with 8 or Fewer Years of School | Percentage of Subgroup With 8 or Fewer Years of School | Number in Subgroup with 4 or Fewer Years of School | Percentage of Subgroup With 4 or Fewer Years of School |
|---|---|---|---|---|---|
| **Age group: 60+** | **3,044,887** | **505,404** | **16.6** | **121,981** | **4.0** |
| Age group: 60-64 | 681,702 | 84,408 | 12.4 | 20,557 | 3.0 |
| Age group: 65-74 | 1,370,204 | 181,032 | 13.2 | 44,147 | 3.2 |
| Age group: 75-84 | 788,697 | 172,670 | 21.9 | 39,002 | 4.9 |
| Age group: 85 and over | 204,284 | 67,294 | 32.9 | 18,275 | 8.9 |

*Note: Please refer to Table 3 in Appendix I.*

them have less than a fourth grade education. When compared with members of their age cohort above the poverty level, the elderly poor are almost three times as likely to have very little education. (See Table 3b.)

## Mobility or Personal Care Limitations

Older Floridians with one or more disabilities have significantly fewer years of schooling than older Floridians without disabilities. The percentage of the over-60 age group who are physically challenged and emotionally limited (eight or fewer years of schooling) is twice that of older people with no disability limitations. (See Table 3c.)

The link between educational status and disability status is shown for all persons aged 60 and over. (See Table 3d. See Appendix for separate Tables for racial and ethnic subgroups.)

Without question, these data show that, for every age cohort aged 60 and over, the incidence of disability decreases as educational status increases. There is also remarkable regularity independent of age group or racial/ethnic group. A causal relationship between educational status and disability status is not inferred. If the disability were present over the lifespan, for example, then it is possible that the disability status led to a low educational attainment rather than vice versa. However, to the extent that the disability occurred after the education of the individual ended, then the data offer convincing evidence that persons with low levels of formal education are at increased risk of developing personal care and mobility restrictions.

**Table 3B**
**ABSOLUTE AND RELATIVE SIZE OF AGE 60 AND OLDER SUBGROUPS OF FLORIDA RESIDENTS AT RISK OF BEING ILLITERATE, 1990**

| Age 60 and Older Subgroup | Total Number in Subgroup | Number in Subgroup with 8 or Fewer Years of School | Percentage of Subgroup With 8 or Fewer Years of School | Number in Subgroup with 4 or Fewer Years of School | Percentage of Subgroup With 4 or Fewer Years of School |
|---|---|---|---|---|---|
| **Age group: 60+** | **3,044,887** | **505,404** | **16.6** | **121,981** | **4.0** |
| **Poverty Status*** | | | | | |
| Below poverty level | 313,632 | 114,697 | 36.6 | 38,922 | 12.4 |
| Above poverty level | 2,650,977 | 369,390 | 13.9 | 76,280 | 2.9 |

**Excluding Group Quarters*

*Note: Please refer to Table 3 in Appendix I.*

## Other Demographic Variables

Floridians 60 and older whose formal education does not go beyond eight years may also be described in other ways. Table 3e shows that 41.6 percent of older households without telephones have residents with eight or fewer years of school. Over 27% of renters share their living quarters with someone other than a spouse. Similarly, twenty-one percent of men, age 60 and over who live alone are poorly educated. Poorly educated females are less likely to live alone. (See Tables 3e and 3f.)

> Older Floridians with one or more disabilities have significantly fewer years of schooling than older Floridians without disabilities.

## Educational Attainment and Illiteracy Rates

In the simplest sense, illiteracy refers to the inability to read or write. Historically, however, measures of illiteracy have been subject to continuing change. In the early 19th century, illiteracy judgments were based on whether persons could sign their name; later in the century, Americans were judged as illiterate if they could not read or write English or a language spoken at home. At present, it is generally agreed that the degree to which adults are considered literate is relative to the expectations placed upon them by

**TABLE 3C**
**ABSOLUTE AND RELATIVE SIZE OF AGE 60 AND OLDER SUBGROUPS OF FLORIDA RESIDENTS AT RISK OF BEING ILLITERATE, 1990**

| Age 60 and Older Subgroup | Total Number in Subgroup | Number in Subgroup with 8 or Fewer Years of School | Percentage of Subgroup With 8 or Fewer Years of School | Number in Subgroup with 4 or Fewer Years of School | Percentage of Subgroup With 4 or Fewer Years of School |
|---|---|---|---|---|---|
| **Age group: 60+** | **3,044,887** | **505,404** | **16.6** | **121,981** | **4.0** |
| **Mobility or Personal Care Limitations** | | | | | |
| One or more disability limitations | 547,876 | 156,439 | 28.6 | 45,474 | 8.3 |
| No disability limitations | 2,497,011 | 348,965 | 14.0 | 76,507 | 3.1 |

*Note: Please refer to Table 3 in Appendix I.*

**TABLE 3D**
**LINK BETWEEN DISABILITY AND EDUCATIONAL STATUS OF OLDER FLORIDIANS, 1990**
**ALL RACIAL AND ETHNIC GROUPS**

| Educational Attainment (School Years Completed) | NONDISABLED | DISABLED | TOTAL | NONDISABLED | DISABLED | TOTAL |
|---|---|---|---|---|---|---|
| | | Number | | | Percentage Distribution | |
| | | | **Age Group: 60-64** | | | |
| 0 - 4 | 15,689 | 4,868 | 20,557 | 76.3 | 23.7 | 100.0 |
| 5 - 8 | 52,472 | 11,379 | 63,851 | 82.2 | 17.8 | 100.0 |
| 0 - 8 | 68,161 | 16,247 | 84,408 | 80.8 | 19.2 | 100.0 |
| 9 - 12 | 319,348 | 36,160 | 355,508 | 89.8 | 10.2 | 100.0 |
| 13+ | 227,025 | 14,761 | 241,786 | 93.9 | 6.1 | 100.0 |
| **Total*** | **614,534** | **67,168** | **681,702** | **90.1** | **9.9** | **100.0** |
| | | | **Age Group: 65-74** | | | |
| 0 - 4 | 31,350 | 12,797 | 44,147 | 71.0 | 29.0 | 100.0 |
| 5 - 8 | 109,129 | 27,756 | 136,885 | 79.7 | 20.3 | 100.0 |
| 0 - 8 | 140,479 | 40,553 | 181,032 | 77.6 | 22.4 | 100.0 |
| 9 - 12 | 640,479 | 93,988 | 734,467 | 87.2 | 12.8 | 100.0 |
| 13+ | 415,471 | 39,234 | 454,705 | 91.4 | 8.6 | 100.0 |
| **Total*** | **1,196,429** | **173,775** | **1,370,204** | **87.3** | **12.7** | **100.0** |
| | | | **Age Group: 75-84** | | | |
| 0 - 4 | 23,026 | 15,976 | 39,002 | 59.0 | 41.0 | 100.0 |
| 5 - 8 | 89,503 | 44,165 | 133,668 | 67.0 | 33.0 | 100.0 |
| 0 - 8 | 112,529 | 60,141 | 172,670 | 65.2 | 34.8 | 100.0 |
| 9 - 12 | 295,493 | 97,868 | 393,361 | 75.1 | 24.9 | 100.0 |
| 13+ | 181,632 | 41,034 | 222,666 | 81.6 | 18.4 | 100.0 |
| **Total*** | **589,654** | **199,043** | **788,697** | **74.8** | **25.2** | **100.0** |
| | | | **Age Group: 85 and over** | | | |
| 0 - 4 | 6,442 | 11,833 | 18,275 | 35.3 | 64.7 | 100.0 |
| 5 - 8 | 21,354 | 27,665 | 49,019 | 43.6 | 56.4 | 100.0 |
| 0 - 8 | 27,796 | 39,498 | 67,294 | 41.3 | 58.7 | 100.0 |
| 9 - 12 | 42,583 | 46,168 | 88,751 | 48.0 | 52.0 | 100.0 |
| 13+ | 26,015 | 22,224 | 48,239 | 53.9 | 46.1 | 100.0 |
| **Total*** | **96,394** | **107,890** | **204,284** | **47.2** | **52.8** | **100.0** |
| | | | **Age Group: 60 and over** | | | |
| 0 - 4 | 76,507 | 45,474 | 121,981 | 62.7 | 37.3 | 100.0 |
| 5 - 8 | 272,458 | 110,965 | 383,423 | 71.1 | 28.9 | 100.0 |
| 0 - 8 | 348,965 | 156,439 | 505,404 | 69.0 | 31.0 | 100.0 |
| 9 - 12 | 1,297,903 | 274,184 | 1,572,087 | 82.6 | 17.4 | 100.0 |
| 13+ | 850,143 | 117,253 | 967,396 | 87.9 | 12.1 | 100.0 |
| **Total*** | **2,497,011** | **547,876** | **3,044,887** | **82.0** | **18.0** | **100.0** |
| | | | **Age Group: 65 and over** | | | |
| 0 - 4 | 60,818 | 40,606 | 101,424 | 60.0 | 40.0 | 100.0 |
| 5 - 8 | 219,986 | 99,586 | 319,572 | 68.8 | 31.2 | 100.0 |
| 0 - 8 | 280,804 | 140,192 | 420,996 | 66.7 | 33.3 | 100.0 |
| 9 - 12 | 978,555 | 238,024 | 1,216,579 | 80.4 | 19.6 | 100.0 |
| 13+ | 623,118 | 102,492 | 725,610 | 85.9 | 14.1 | 100.0 |
| **Total*** | **1,882,477** | **480,708** | **2,363,185** | **79.7** | **20.3** | **100.0** |

*The 0-8 "school years completed" category (the sum of 0-4 and 5-8 categories) is not included in Total.

their social roles, cultural environment, and economic context. Skills and knowledge once defined as literacy may become obsolete in the face of new and changing social circumstances and economic contexts. People once considered literate by certain standards or who may now be considered literate in narrow or prescribed circumstances may not be considered literate by new measures or in broader contexts. Ascertaining levels of literacy is a complex undertaking by any standard.

Skills and knowledge once defined as literacy may become obsolete in the face of new and changing social circumstances and economic contexts.

The concept of functional literacy, generally connoting a level of oral and written ability, knowledge, and skill commensurate with effective functioning in home, community, and work environments, has recently gained currency (Brown, 1989). Since functional literacy expands the definition of relevant knowledge and comprises multiple skills, older people might be considered literate in some areas, but not in others (Courtenay, Stevenson, and Suhart, 1982). The person who can add figures to measure and cut out a garment to sew and the person who can follow a blueprint, both without being able to read formal instructions, fall into this category.

In an attempt to base estimations of literacy on contextually-derived data, the 1993 National Literacy Survey, a project funded by the U.S. Department of Education, elicited the responses of adults to a series of diverse literacy tasks that approximated tasks and situations encountered in daily life. They were scored on three scales which reflected varying

**TABLE 3E**
**ABSOLUTE AND RELATIVE SIZE OF AGE 60 AND OLDER SUBGROUPS OF FLORIDA RESIDENTS AT RISK OF BEING ILLITERATE, 1990**

| Age 60 and Older Subgroup | Total Number in Subgroup | Number in Subgroup with 8 or Fewer Years of School | Percentage of Subgroup With 8 or Fewer Years of School | Number in Subgroup with 4 or Fewer Years of School | Percentage of Subgroup With 4 or Fewer Years of School |
|---|---|---|---|---|---|
| **Age group: 60+** | **3,044,887** | **505,404** | **16.6** | **121,981** | **4.0** |
| **Living Arrangements*** | | | | | |
| Married couple | 1,938,938 | 271,734 | 14.0 | 59,733 | 3.1 |
| Male living alone | 163,685 | 34,354 | 21.0 | 9,435 | 5.8 |
| Female living alone | 535,962 | 88,463 | 16.5 | 18,815 | 3.5 |
| Other living arrangements** | 313,960 | 87,370 | 27.8 | 26,350 | 8.4 |
| **Presence of Telephone*** | | | | | |
| Household with telephone | 2,899,562 | 459,900 | 15.8 | 105,492 | 3.6 |
| Household without telephone | 52,983 | 22,021 | 41.6 | 8,841 | 16.7 |

**Excluding Group Quarters*
***Two or more unmarried persons in household*

*Note: Please refer to Table 3 in Appendix I.*

degrees of proficiency in prose, document, and quantitative literacy.

The Florida Department of Education estimates literacy levels in terms of grade-level assessments. These assessments are expressed in grade equivalence. Accordingly, The Florida Adult Literacy Plan (FALP) defines levels below sixth grade (0 - 5.9) as basic literacy levels and levels below ninth grade (6.0 - 8.9) as functional literacy levels. The FALP suggests, however, that an attack on the problem of illiteracy calls for more information about adults than that contained in self-reported grade completion or tests for grade equivalency. This suggestion recognizes the complexity of determining literacy levels, and the dynamic quality of literacy itself.

**TABLE 3F**

**AGE 60 AND OLDER SUBGROUPS OF FLORIDA'S RESIDENTS AT RISK OF BEING ILLITERATE, 1990**

| Age 60 and Older Subgroup | Percentage of Subgroup With 8 or Fewer Years of School |
|---|---|
| NonHispanic Blacks | 48.7 |
| Hispanics | 44.7 |
| Household without telephone* | 41.6 |
| Below poverty level* | 36.6 |
| Born outside U.S.*** | 33.3 |
| Age group: 85 and over | 32.9 |
| One or more disability limitations | 28.6 |
| Other living arrangements** | 27.8 |
| Born in Florida | 27.6 |
| Renters | 27.2 |
| Living in group quarters | 25.4 |
| Age group: 75-84 | 21.9 |
| Males living alone* | 21.0 |
| Males | 16.8 |
| **Age group: 60+** | **16.6** |
| Females living alone* | 16.5 |
| Females | 16.4 |
| Household with telephone* | 15.8 |
| Owners | 14.4 |
| No disability limitations | 14.0 |
| Married couples* | 14.0 |
| Above poverty level* | 14.0 |
| Age group: 65-74 | 13.2 |
| Age group: 60-64 | 12.4 |
| NonHispanic Whites | 11.8 |
| Born in state other than Florida | 11.8 |

**Excluding Group Quarters*
***Two or more unmarried persons in household*
****Puerto Rico, U.S. Outlying Areas, Abroad*

Educational attainment as indicated by years of schooling is a commonly used marker by which to estimate levels of literacy, and there is shown to be a "strong correlation between years of school completed and other measures of adult functioning" (Brizius and Foster, 1987). Because formal education is measured by the U.S. Census, it is consistently relied upon as an indicator of the educational adequacy of a population.

Nearly all definitions of literacy imply the possession or acquisition of certain basic and functional requirements. It seems reasonable to assume that significant achievement of those requirements is realized through formal schooling, which provides a foundation for the development of knowledge and skills both within and without the formal schooling context. Where there is no such context, community-based programs geared to the literacy needs of the population are required to provide that foundation.

## Summary of Manifestations and Effects of Low Educational Attainment in the Elderly

Low levels of education combined with old age, poverty, disability status and minority status put those so affected at risk for a severely reduced quality of life. The most conservative opinion of the relationship between years of schooling and literacy would support the contention that persons who have few years of schooling and for whom there is no systematic and sustained educational intervention will be seriously hampered in their efforts to function fully. A likely basis of their dysfunction will be their lack of basic and functional literacy. Clearly, undereducation is a major factor in illiteracy.

A study done by Kevin Freer, at the College of Education of Florida State University, characterized the negative impact of the lack of literacy in the elderly as follows: "...the lack of literacy skills (in the elderly) results in embarrassment and low self-esteem, dependence on others, loss of limited resources, personal security risks, social isolation, the inability to meet expressive needs, and in limited choices of leisure time activities." The impact of low educational attainment is felt both in the expenditure of actual dollars and in personal and societal costs. Associations are seen in socioeconomic status, awareness and use of health and community services, personal empowerment and well-being, as well as in familial and community relationships. Separating the societal toll from the personal privation engendered by educational disadvantage is difficult. Given the reciprocity between them, it may be academic to dwell on the distinctions at this time. It is instructive, however, to consider both the social and personal implications of low levels of education on the performance of older citizens in many aspects of their lives.

A more insidious result of elder illiteracy is the inefficient use and even loss of limited economic resources.

## Economic Status

**A national study of U.S. elderly households concluded that "...education, directly and through its effects on occupational status and other aspects of employment history, has effects on economic well-being which are at least as strong after age 65 as before, despite the many life events which intervene" (Crystal, Shea, and Krishnaswami, 1992, p. S220).** Better educated elderly persons are able to work longer and are more likely to be self-employed. They have significantly higher mean incomes especially from pensions and annuitized wealth and, to a lesser extent, from Social Security. Overall, less educated elderly persons are more likely to be below the poverty level.

A more insidious result of elder illiteracy is the inefficient use and even loss of limited economic resources. Unable to use a simple calculator or do computations necessary to maintaining a checking account, many elderly persons rely on paying all bills in person and shopping with cash. Unable to use a telephone book, they cannot locate goods and services before shopping. They cannot read newspaper advertisements to find bargains that would stretch their dollars. Some

throw away vital Social Security or food stamp information that arrives in the mail. Inability to read and understand purchase agreements may result in, at the least, overpayment for goods and services; at worst, outright fraud (Freer 1990).

## Access To and Awareness Of Services

A study of 126 application forms and informational documents used by such federal programs as Social Security, Medicare, public assistance, and food stamps revealed that only 2 percent had readability levels below the ninth grade, and 56 percent had readability levels between grade 9 and 12.5 (Walmsley, 1980). Another study on causes of the underutilization of the Supplemental Security Income program (Hess, 1986) found that among poor, elderly people who may be eligible for SSI, less than half ever applied for SSI benefits. The primary reason most eligible, elderly, poor nonparticipants failed to apply was lack of access to information on the program. As stated in the report, "The shortfall in the effective coverage of SSI means that the program is not fully meeting the purposes for which it was established. Greater participation would provide some income assistance to elderly people who are struggling to live on meager incomes. It could also increase their awareness of and participation in other programs--Medicaid, Food Stamps, and social services--for which they may be eligible" (p. 6).

The human service provider can play a key role in facilitating the survival skills of the older adult (Lowy, 1987-1988, p. 34):

**Delivery of service demands educational components, as the service professional must not only be skilled in interviewing, counseling, group work, casefinding and management, and the like (that is, in carrying out the core repertoire of social work practice), but he or she must simultaneously command educational, didactic knowledge and skills in conveying and utilizing the service-skill components. Services must be available, accessible, and acceptable to client systems. The social worker must be in a position to offer needed services in such a manner...that a client or group feels comfort, empathy, and full acceptance of the service and its worker. Moreover, should novel problems or crises arise, then newly learned behavior should be adaptable, and a transfer of learning should take place (Lowy, p. 34).**

Many service providers, already overwhelmed with evaluating the disability needs of persons and estimating who qualifies for benefits, find their need to deal with literacy problems an added burden (Jacobs, 1985). In instances where reading skills are suspected to be impaired, the service provider can probably administer a simple test to assess patient's limitations (e.g. Rapid Estimate of Adult Literacy in Medicine instrument; standardized reading tests) (Murphy et al., 1993).

Enabling elderly people to effectively use public goods and services is a wise investment and an indispensable part of long-term care strategies for the elderly. Often, the adult who is practiced in a lifetime of strategies geared to hiding his or her illiteracy simply cannot overcome the embarrassment of having to ask for help in accessing these services. The low-esteem associated with lack of literacy can be severely punishing to one facing the failure of these strategies for the first time.

## Health Needs and Care

The likelihood of physical viability and longevity is associated with higher levels of education. Lower-educated elderly persons are sicker, and are less knowledgeable about preventive health care services. The issues surrounding illiteracy in relationship to elderly health maintenance may be categorized as follows:

*1.* The inability to retrieve and comprehend information and the lack of verbal facility to access preventive care have undesirable consequences for health care delivery and costs. Escalating costs resulting from inefficient and repetitive use of services places great strain on an already inadequate, stretched care-giving system.

*2.* Diagnosis, health care, and treatment are adversely affected by the low-educated elderly client's inability to follow written directions, fill out forms, or record events or feelings which may facilitate caregiving. The inability to read interferes with compliance with in-home medical regimens and preventive actions, as well as the ability to self-manage.

*3.* Lack of education has serious implications for the cost-effective use of scarce resources and limited service options, particularly in the area of fraudulent service delivery. Undereducated elderly are prime targets for unscrupulous practitioners who overprescribe or duplicate services on unsuspecting clients, with the effect of substantial cost to the state.

***4.* Illiterate elderly persons are disadvantaged in their recovery from acquired communication disorders such as hearing impairments, aphasia, or laryngectomies.** Patients with these disorders must learn to use alternative methods of communication during rehabilitation. Visual and auditory means of therapy and successful outcomes of rehabilitation are more limited because of impaired reading and writing skills. More generally, "failure to recognize illiteracy as a potential communication deficit in older adults places speech pathologists and audiologists at risk for misidentifying communication impairments and designing ineffective or inappropriate intervention strategies" (Kahn and Kelly, 1991). Service providers are already overwhelmed with evaluating the disability needs of older persons and deciding who qualifies for benefits. Having to deal with less educated older persons adds yet another challenge.

Undereducated older people also tend to be underinsured, to use health care facilities less actively and effectively, and to adopt less healthy lifestyles. Low education levels are also theoretically linked with a shorter life span (Goldfarb, 1971, p.92):

> "Poor education makes for socioeconomic deprivation, which contributes to physical illness, which results in chronic invalidism or impairment of function (physical or mental), which ultimately leads to a shorter life span. Conversely, good education leads to socioeconomic advantages, and protection against illness, accidents, invalidism, and excessive disability."

## Personal Empowerment

In an era in which information is power, the educationally disadvantaged elderly are most powerless, an effect which is sure to diminish their sense of well-being. Indicators of empowerment such as retaining their ability to cope, exerting control over their lives, and remaining independent well into old age are threatened by their inability to use and comprehend written and oral language. Another aspect of such powerlessness is the social isolation that results from being unable to correspond with friends and family, to read the telephone book, or to keep up with social events through church bulletins or newspapers. Studies have found that better educated elders are more likely to be members of volunteer organizations, belong to social and religious organizations, have more friends, and generally have a more extensive social life.

## Mental Health

A 1989 national survey of the older population showed a strong correlation between lower educational attainment and the prevalence of serious mental illness; that is, a psychiatric disorder that seriously interfered with one or more aspects of a person's daily life (Barker et al., 1992). In a longitudinal study of 1,831 persons aged 65 and older, a higher level of education was associated with a more positive assessment by respondents of their own mental health (Haug et al., 1984). Short term memory performance, particularly memory recall accuracy and quickness of response, was shown to be poorer among less educated older adults, especially when they also displayed symptoms of depression (Hilbert, Niederehe, and Kahn, 1976). **In addition, the possibility exists that low education levels result in older people being mistakenly diagnosed as having dementia illnesses** (Murden et al., 1991).

## Domestic and Familial Relations

Domestic and familial relations are most often affected in the area of caregiving. Caring for the old-old places great responsibility on friends and family who often take on the role of untrained case managers. Care recipients who are low-income, have low education levels, and are very old may live with someone other than a spouse and require substantial assistance.

Under the best of circumstances, aging-in-place as an elderly care policy or strategy is scrutinized and questioned for the inevitable care burden it places on family members and friends. **The responsibility of the informal caregiving network is heightened when caregiving is complicated by greater dependence engendered by the combined effects of illness, immobility, and low educational levels.** The situation is exacerbated when caregivers themselves are old and illiterate. Efforts to keep older Floridians in the home and among family are frustrated by this cumulative disadvantage. When informal caregiving networks become prohibitive, caregiving becomes the social and fiscal responsibility of the larger community.

## Housing

Elderly persons who are illiterate are less likely to be homeowners. In turn, they are less likely to live in dwellings that can be readily adapted to accommodate their aging in place. More generally, low education is a strong predictor of both older homeowners and renters living in physically

substandard housing (Golant and LaGreca, 1993). They also are more likely to have difficulty finding appropriate housing alternatives to address their shelter needs (Heumann, 1985).

For the older persons who live in nursing homes, reading skills are necessary for two principal purposes: ***1.*** to enable them to function in the nursing home through the reading of notices, menus, and event calendars and ***2.*** to partake of reading as a recreational activity having a value in itself. In recent years, federal statutes have mandated efforts toward increased autonomy and empowerment among nursing home residents. In light of such statutes, it may be argued that compliance requires that nursing homes increase their sensitivity to elder illiteracy and develop strategies to address the problem.

## A Call To Action

Florida can ill afford to accept the state of affairs described in this report. It is one that imperils thousands of its valued citizens. Education is currency, recognized as the basis for success and enrichment of human life.

The infrastructure for addressing the problem of low educational attainment is presently in place. It incorporates existing governmental and private/nonprofit and for-profit agencies, community-based organizations, professional associations and dedicated individuals who volunteer their time and talents. Support is evidenced by resources and programs currently targeted at eradicating illiteracy in the state. Some might say that the dollars already earmarked for adult literacy are sufficient, or that literacy dollars targeted for the old are wasted funds. This report challenges both notions.

While this report does not argue the good obtained by existing efforts, it must be acknowledged that present efforts should be examined and additional measures envisioned to thwart a growing threat. Toward that end, recommendations are offered here for consideration by decision makers at all levels.

## Elder Education and Reform

***I. PROCLAIM ELDER ILLITERACY A SERIOUS THREAT TO THE INDEPENDENCE, SOUND PHYSICAL AND MENTAL HEALTH, ECONOMIC WELL-BEING AND OVERALL QUALITY OF LIFE OF OLDER FLORIDIANS.***

***(A)*** Develop public information efforts to engage public support for literacy programs for all ages as an intervention strategy to avert the devastating cumulative effects of low educational levels on the old.

***(B)*** Identify low educational levels as a threat to successful health promotion and wellness.

***(C)*** Target health and social service policymakers and providers to inform them about this threat, emphasizing that improved literacy skills are a prevention strategy against disability, health and mental health problems and dependence.

***II. APPLY THE ENTIRE RANGE OF STATE POWERS AND FUNCTIONS TO REDUCE ILLITERACY RATES AMONG THE OLD.***

***(A)*** Target specific, existing resources and programs to ensure access to learning by older individuals and develop new resources and methods for identifying and reaching older persons with education levels below ninth grade.

***(B)*** Allocate at least 60% of literacy funding to older adults, who represent 60% of persons with low literacy levels.

*(C)* Sponsor studies or other fact-finding activities to identify poorly educated older people cost effectively and to increase the likelihood that they will avail themselves of educational services once they have been identified.

*(D)* Design relevant measures for defining adult literacy that adhere less to school grade norms and more toward the social roles of older adults.

*(E)* Sponsor educational activities for state legislators and other local and state government officials to better enable them to understand and communicate the direct connections between enhanced literacy levels of older persons and other public goals such as improved health care, job acquisition, reduced welfare dependency, and better school preparedness of succeeding generations.

***III. ENCOURAGE HEALTH AND SOCIAL SERVICE PROVIDERS TO ASSESS LITERACY NEEDS OF OLDER ADULTS AND ASSIST WITH IMPROVING LITERACY SKILLS AS NEEDED.***

*(A)* Ensure that existing state-funded agencies providing elderly services include literacy development as a direct or indirect service to older clients.

*(B)* State agencies that provide public assistance programs to elderly clientele should provide assistance in increasing literacy levels.

*(C)* Influence service eligibility policies, such as Vocational Rehabilitation, to assist older adults with low literacy levels in preparing for gainful employment and improved quality of life.

*(D)* Broaden eligibility definitions for programs supporting independent living to recognize the importance of improved literacy skills as essential to successful independent living.

*(E)* Educate health and social service professionals on signs of illiteracy. Engage their cooperation in evaluation and development of specific systems to adequately diagnose literacy deficiencies. Include educational services in case management assessments for older individuals, especially for persons with low literacy levels.

*(F)* Inform staff and volunteers who serve older persons about the availability of literacy programs, including eligibility requirements and location of literacy services in the community.

*(G)* Challenge senior centers that receive federal dollars to offer literacy services, either through an integrated effort with the current delivery of educational services or in cooperation with outside providers.

*(H)* Expand nursing home requirements under federal statutes to include literacy services to residents who are illiterate.

***IV. SUPPORT LOCAL COMMUNITY EFFORTS TO INCREASE LITERACY SKILLS.***

*(A)* Promote networking and coalition-building among the programs and sponsors in local areas.

*(B)* Invest money and other resources in upgrading the skills and competencies of teachers and volunteer tutors. Literacy tutors must be more than subject-matter experts. Tutors who face the formidable job of developing functionally literate adults should understand older adults as learners and should be competent in facilitating adult learning.

*(C)* Develop curriculum appropriate to the older learner.

*(D)* Ensure diversity among the staff who work with the elderly, including age, cultural, ethnic, gender, and linguistic diversity. Older adults in Florida are a diverse group. Older students should see themselves reflected in teaching and tutorial personnel and in other literacy service personnel. Addressing differences in this way will

increase the comfort level of adults in learning situations and decrease the possibility that diagnostic and other program intake procedures will be affected by cultural misinterpretations.

***(E)*** Engage in participatory planning with a wide variety of interested persons, including older persons themselves. Knowledge and expertise useful for educating older adult learners is not just the responsibility of educators. Caregivers, family, community leaders, and older persons themselves are useful resources for planning elderly education. Along with educators, they should be among the first tier of educational program planners.

***(F)*** Study and refine intake assessment procedures for use in programs in order to reduce social and psychological barriers to entering. Program entry should be user-friendly. This requires that program personnel review their use of standardized tests and other written measures for taking in elderly learners with little or no formal education. The availability of alternative assessment procedures should be fully explored.

***(G)*** Build into program design the capacity to determine if the intended goals are really being met. Evaluative methods should focus on short-term gains as well as long-term goals. This suggests the development of longitudinal studies which can be used as reliable information on which to base resource allocations, make programmatic decisions, and ensure program accountability to learners and to the tax-paying public.

***(H)*** Continue to expand opportunities for networking, best practice exchange and the development of new information and educational practices. Statewide structures, such as the newly established Florida Adult Literacy Resource Center, and long-standing groups such as the Florida Department of Education, Florida Council on Aging, Florida Literacy Coalition, Laubach and LVA should be fully utilized as central networks to support and assist local programs.

## In Conclusion

Targeting the elderly for educational and literacy services and programs makes sense and saves dollars. Undereducation and illiteracy at any age are very expensive. These costs are often indeterminate for older people since they may be disguised or hidden in the exorbitant costs of care, sickness, and dysfunction associated with poor quality of life.

In the past it may have been sufficient simply to pose education and literacy services for the elderly as a good thing to do, a basic right, the inheritance of living in a democratic society. Today, however, policy makers and sponsors who may themselves subscribe to the theory of education as an inheritance must respond to economic conditions and political realities such as lowering taxes and creating jobs. Faced with such public expectations, the provision of literacy services for the undereducated elderly is now further documented by this report to be cost-efficient as well as humane.

Illiteracy and undereducation among the elderly are costly impairments, equally as inhibiting as physical and mental dysfunction. The costs are realized in actual dollar expenditures as well as in reduced human dignity and self-sufficiency. Clearly, the time has come for Florida's leaders in aging services to address this issue in a bold and timely fashion, addressing The Unfinished Business of Learning.

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# Appendix I

(Note: Tables 1 and 2 can be found on pages 1 and 2.)

**TABLE 3**

**ABSOLUTE AND RELATIVE SIZE OF AGE 60 AND OLDER SUBGROUPS OF FLORIDA RESIDENTS AT RISK OF BEING ILLITERATE, 1990**

| Age 60 and Older Subgroup | Total Number in Subgroup | Number in Subgroup with 8 or Fewer Years of School | Percentage of Subgroup With 8 or Fewer Years of School | Number in Subgroup with 4 or Fewer Years of School | Percentage of Subgroup With 4 or Fewer Years of School |
|---|---|---|---|---|---|
| **Age group: 60+** | **3,044,887** | **505,404** | **16.6** | **121,981** | **4.0** |
| Age group: 60-64 | 681,702 | 84,408 | 12.4 | 20,557 | 3.0 |
| Age group: 65-74 | 1,370,204 | 181,032 | 13.2 | 44,147 | 3.2 |
| Age group: 75-84 | 788,697 | 172,670 | 21.9 | 39,002 | 4.9 |
| Age group: 85 and over | 204,284 | 67,294 | 32.9 | 18,275 | 8.9 |
| **Sex** | | | | | |
| Male | 1,312,168 | 220,736 | 16.8 | 55,688 | 4.2 |
| Female | 1,732,719 | 284,668 | 16.4 | 66,293 | 3.8 |
| **Race and Hispanic Origin** | | | | | |
| Hispanics | 239,426 | 107,007 | 44.7 | 38,390 | 16.0 |
| NonHispanic Whites | 2,617,030 | 309,405 | 11.8 | 46,736 | 1.8 |
| NonHispanic Blacks | 175,369 | 85,371 | 48.7 | 35,180 | 20.1 |
| Other NonHispanic Races | 13,062 | 3,621 | 27.7 | 1,675 | 12.8 |
| **Living Arrangements*** | | | | | |
| Married couple | 1,938,938 | 271,734 | 14.0 | 59,733 | 3.1 |
| Male living alone | 163,685 | 34,354 | 21.0 | 9,435 | 5.8 |
| Female living alone | 535,962 | 88,463 | 16.5 | 18,815 | 3.5 |
| Other living arrangements** | 313,960 | 87,370 | 27.8 | 26,350 | 8.4 |
| **Poverty Status*** | | | | | |
| Below poverty level | 313,632 | 114,697 | 36.6 | 38,922 | 12.4 |
| Above poverty level | 2,650,977 | 369,390 | 13.9 | 76,280 | 2.9 |
| **Mobility or Personal Care Limitations** | | | | | |
| One or more disability limitations | 547,876 | 156,439 | 28.6 | 45,474 | 8.3 |
| No disability limitations | 2,497,011 | 348,965 | 14.0 | 76,507 | 3.1 |
| **Dwelling Tenure Status** | | | | | |
| Owners | 2,505,419 | 360,510 | 14.4 | 76,772 | 3.1 |
| Renters | 447,126 | 121,411 | 27.2 | 37,561 | 8.4 |
| Living in group quarters | 92,342 | 23,483 | 25.4 | 7,648 | 8.3 |
| **Presence of Telephone*** | | | | | |
| Household with telephone | 2,899,562 | 459,900 | 15.8 | 105,492 | 3.6 |
| Household without telephone | 52,983 | 22,021 | 41.6 | 8,841 | 16.7 |
| **Place of Birth** | | | | | |
| Born in Florida | 274,605 | 75,688 | 27.6 | 22,662 | 8.3 |
| Born in state other than Florida | 2,291,750 | 270,485 | 11.8 | 46,782 | 2.0 |
| Born outside U.S.*** | 478,532 | 159,231 | 33.3 | 52,537 | 11.0 |

**Excluding Group Quarters*

***Two or more unmarried persons in household*

****Puerto Rico, U.S. Outlying Areas, Abroad*

**TABLE 4**

**NUMBER OF ELDERLY RESIDENTS IN FLORIDA BELOW POVERTY LEVEL AT RISK OF BY AGE AND RACE/HISPANIC STATUS, 1990**

| | Educational Attainment (School Years Completed) | | | | | |
|---|---|---|---|---|---|---|
| Race/Hispanic Age | 0 - 4 | 5 - 8 | 0-8 | 9 - 12 | 13 + | Total* |
| **Age Group: 60 - 64** | | | | | | |
| Hispanic | 1,941 | 3,222 | 5,163 | 3,968 | 1,145 | 10,276 |
| NonHispanic White | 1,228 | 5,572 | 6,800 | 25,008 | 8,360 | 40,168 |
| NonHispanic Black | 2,767 | 4,301 | 7,068 | 6,103 | 895 | 14,066 |
| NonHispanic Other | 113 | 177 | 290 | 271 | 97 | 658 |
| **Total** | **6,049** | **13,272** | **19,321** | **35,350** | **10,497** | **65,168** |
| **Age Group: 65 - 74** | | | | | | |
| Hispanic | 5,209 | 7,546 | 12,755 | 6,576 | 2,186 | 21,517 |
| NonHispanic White | 3,230 | 11,658 | 14,888 | 46,478 | 14,201 | 75,567 |
| NonHispanic Black | 5,923 | 7,811 | 13,734 | 9,316 | 1,276 | 24,326 |
| NonHispanic Other | 244 | 162 | 406 | 242 | 197 | 845 |
| **Total** | **14,606** | **27,177** | **41,783** | **62,612** | **17,860** | **122,255** |
| **Age Group: 75 - 84** | | | | | | |
| Hispanic | 4,363 | 6,024 | 10,387 | 4,488 | 1,305 | 16,180 |
| NonHispanic White | 3,207 | 15,542 | 18,749 | 36,004 | 10,332 | 65,085 |
| NonHispanic Black | 5,122 | 5,204 | 10,326 | 4,283 | 456 | 15,065 |
| NonHispanic Other | 191 | 79 | 270 | 111 | 40 | 421 |
| **Total** | **12,883** | **26,849** | **39,732** | **44,886** | **12,133** | **96,751** |
| **Age Group: 85 and** | | | | | | |
| Hispanic | 1,142 | 1,206 | 2,348 | 964 | 288 | 3,600 |
| NonHispanic White | 2,236 | 5,923 | 8,159 | 10,174 | 3,293 | 21,626 |
| NonHispanic Black | 1,984 | 1,348 | 3,332 | 728 | 95 | 4,155 |
| NonHispanic Other | 22 | 0 | 22 | 55 | 0 | 77 |
| **Total** | **5,384** | **8,477** | **13,861** | **11,921** | **3,676** | **29,458** |
| **Age Group: 60 and** | | | | | | |
| Hispanic | 12,655 | 17,998 | 30,653 | 15,996 | 4,924 | 51,573 |
| NonHispanic White | 9,901 | 38,695 | 48,596 | 117,664 | 36,186 | 202,446 |
| NonHispanic Black | 15,796 | 18,664 | 34,460 | 20,430 | 2,722 | 57,612 |
| NonHispanic Other | 570 | 418 | 988 | 679 | 334 | 2,001 |
| **Total** | **38,922** | **75,775** | **114,697** | **154,769** | **44,166** | **313,632** |
| **Age Group: 65 and** | | | | | | |
| Hispanic | 10,714 | 14,776 | 25,490 | 12,028 | 3,779 | 41,297 |
| NonHispanic White | 8,673 | 33,123 | 41,796 | 92,656 | 27,826 | 162,278 |
| NonHispanic Black | 13,029 | 14,363 | 27,392 | 14,327 | 1,827 | 43,546 |
| NonHispanic Other | 457 | 241 | 698 | 408 | 237 | 1,343 |
| Total | **32,873** | **62,503** | **95,376** | **119,419** | **33,669** | **248,464** |

**The 0-8 "school years completed" category (the sum of 0-4 and 5-8 categories) is not included in Total.*

**TABLE 5**
**PERCENTAGE OF ELDERLY RESIDENTS IN FLORIDA BELOW POVERTY LEVEL AT BEING ILLITERATE BY AGE AND RACE/HISPANIC STATUS, 1990**

| Race/Hispanic Age Group | Educational Attainment (School Years Completed) | | | | | |
|---|---|---|---|---|---|---|
| | 0 - 4 | 5 - 8 | 0-8 | 9 - 12 | 13+ | Total* |
| **Age Group: 60 - 64** | | | | | | |
| Hispanic | 18.9 | 31.4 | 50.2 | 38.6 | 11.1 | 100.0 |
| NonHispanic White | 3.1 | 13.9 | 16.9 | 62.3 | 20.8 | 100.0 |
| NonHispanic Black | 19.7 | 30.6 | 50.2 | 43.4 | 6.4 | 100.0 |
| NonHispanic Other | 17.2 | 26.9 | 44.1 | 41.2 | 14.7 | 100.0 |
| **Total** | **9.3** | **20.4** | **29.6** | **54.2** | **16.1** | **100.0** |
| **Age Group: 65 - 74** | | | | | | |
| Hispanic | 24.2 | 35.1 | 59.3 | 30.6 | 10.2 | 100.0 |
| NonHispanic White | 4.3 | 15.4 | 19.7 | 61.5 | 18.8 | 100.0 |
| NonHispanic Black | 24.3 | 32.1 | 56.5 | 38.3 | 5.2 | 100.0 |
| NonHispanic Other | 28.9 | 19.2 | 48.0 | 28.6 | 23.3 | 100.0 |
| **Total** | **11.9** | **22.2** | **34.2** | **51.2** | **14.6** | **100.0** |
| **Age Group: 75 - 84** | | | | | | |
| Hispanic | 27.0 | 37.2 | 64.2 | 27.7 | 8.1 | 100.0 |
| NonHispanic White | 4.9 | 23.9 | 28.8 | 55.3 | 15.9 | 100.0 |
| NonHispanic Black | 34.0 | 34.5 | 68.5 | 28.4 | 3.0 | 100.0 |
| NonHispanic Other | 45.4 | 18.8 | 64.1 | 26.4 | 9.5 | 100.0 |
| **Total** | **13.3** | **27.8** | **41.1** | **46.4** | **12.5** | **100.0** |
| **Age Group: 85 and over** | | | | | | |
| Hispanic | 31.7 | 33.5 | 65.2 | 26.8 | 8.0 | 100.0 |
| NonHispanic White | 10.3 | 27.4 | 37.7 | 47.0 | 15.2 | 100.0 |
| NonHispanic Black | 47.7 | 32.4 | 80.2 | 17.5 | 2.3 | 100.0 |
| NonHispanic Other | 28.6 | 0.0 | 28.6 | 71.4 | 0.0 | 100.0 |
| **Total** | **18.3** | **28.8** | **47.1** | **40.5** | **12.5** | **100.0** |
| **Age Group: 60 and over** | | | | | | |
| Hispanic | 24.5 | 34.9 | 59.4 | 31.0 | 9.5 | 100.0 |
| NonHispanic White | 4.9 | 19.1 | 24.0 | 58.1 | 17.9 | 100.0 |
| NonHispanic Black | 27.4 | 32.4 | 59.8 | 35.5 | 4.7 | 100.0 |
| NonHispanic Other | 28.5 | 20.9 | 49.4 | 33.9 | 16.7 | 100.0 |
| **Total** | **12.4** | **24.2** | **36.6** | **49.3** | **14.1** | **100.0** |
| **Age Group: 65 and over** | | | | | | |
| Hispanic | 25.9 | 35.8 | 61.7 | 29.1 | 9.2 | 100.0 |
| NonHispanic White | 5.3 | 20.4 | 25.8 | 57.1 | 17.1 | 100.0 |
| NonHispanic Black | 29.9 | 33.0 | 62.9 | 32.9 | 4.2 | 100.0 |
| NonHispanic Other | 34.0 | 17.9 | 52.0 | 30.4 | 17.6 | 100.0 |
| Total | **13.2** | **25.2** | **38.4** | **48.1** | **13.6** | **100.0** |

**The 0-8 "school years completed" category (the sum of 0-4 and 5-8 categories) is not included in Total.*

**TABLE 6**

**NUMBER OF ELDERLY RESIDENTS IN FLORIDA ABOVE POVERTY LEVEL AT RISK OF BEING ILLITERATE BY AGE AND RACE/HISPANIC STATUS, 1990**

| | Educational Attainment (School Years Completed) | | | | | |
|---|---|---|---|---|---|---|
| Race/Hispanic Age Group | 0 - 4 | 5 - 8 | 0-8 | 9 - 12 | 13+ | Total* |
| **Age Group: 60 - 64** | | | | | | |
| Hispanic | 6,494 | 14,095 | 20,589 | 22,469 | 14,825 | **57,883** |
| NonHispanic White | 3,920 | 27,392 | 31,312 | 275,626 | 207,089 | **514,027** |
| NonHispanic Black | 3,347 | 8,109 | 11,456 | 17,917 | 7,061 | **36,434** |
| NonHispanic Other | 248 | 471 | 719 | 2,192 | 1,445 | **4,356** |
| **Total** | **14,009** | **50,067** | **64,076** | **318,204** | **230,420** | **612,700** |
| **Age Group: 65 - 74** | | | | | | |
| Hispanic | 10,077 | 20,312 | 30,389 | 30,175 | 18,211 | **78,775** |
| NonHispanic White | 10,427 | 74,102 | 84,529 | 611,814 | 406,458 | **1,102,801** |
| NonHispanic Black | 7,081 | 13,051 | 20,132 | 20,764 | 7,927 | **48,823** |
| NonHispanic Other | 499 | 648 | 1,147 | 2,231 | 1,459 | **4,837** |
| **Total** | **28,084** | **108,113** | **136,197** | **664,984** | **434,055** | **1,235,236** |
| **Age Group: 75 - 84** | | | | | | |
| Hispanic | 6,183 | 12,269 | 18,452 | 13,300 | 6,510 | **38,262** |
| NonHispanic White | 12,193 | 81,321 | 93,514 | 313,254 | 192,393 | **599,161** |
| NonHispanic Black | 5,343 | 7,271 | 12,614 | 6,822 | 2,601 | **22,037** |
| NonHispanic Other | 314 | 366 | 680 | 499 | 374 | **1,553** |
| **Total** | **24,033** | **101,227** | **125,260** | **333,875** | **201,878** | **661,013** |
| **Age Group: 85 and over** | | | | | | |
| Hispanic | 2,322 | 2,756 | 5,078 | 3,079 | 1,161 | **9,318** |
| NonHispanic White | 6,208 | 29,428 | 35,636 | 57,648 | 34,599 | **127,883** |
| NonHispanic Black | 1,602 | 1,476 | 3,078 | 1,153 | 387 | **4,618** |
| NonHispanic Other | 22 | 43 | 65 | 64 | 80 | **209** |
| **Total** | **10,154** | **33,703** | **43,857** | **61,944** | **36,227** | **142,028** |
| **Age Group: 60 and over** | | | | | | |
| Hispanic | 25,076 | 49,432 | 74,508 | 69,023 | 40,707 | **184,238** |
| NonHispanic White | 32,748 | 212,243 | 244,991 | 1,258,342 | 840,539 | **2,343,872** |
| NonHispanic Black | 17,373 | 29,907 | 47,280 | 46,656 | 17,976 | **111,912** |
| NonHispanic Other | 1,083 | 1,528 | 2,611 | 4,986 | 3,358 | **10,955** |
| **Total** | **76,280** | **293,110** | **369,390** | **1,379,007** | **902,580** | **2,650,977** |
| **Age Group: 65 and over** | | | | | | |
| Hispanic | 18,582 | 35,337 | 53,919 | 46,554 | 25,882 | **126,355** |
| NonHispanic White | 28,828 | 184,851 | 213,679 | 982,716 | 633,450 | **1,829,845** |
| NonHispanic Black | 14,026 | 21,798 | 35,824 | 28,739 | 10,915 | **75,478** |
| NonHispanic Other | 835 | 1,057 | 1,892 | 2,794 | 1,913 | **6,599** |
| Total | **62,271** | **243,043** | **305,314** | **1,060,803** | **672,160** | **2,038,277** |

**The 0-8 "school years completed" category (the sum of 0-4 and 5-8 categories) is not included in Total.*

**TABLE 7**

**PERCENTAGE OF ELDERLY RESIDENTS IN FLORIDA ABOVE POVERTY LEVEL AT RISK OF BEING ILLITERATE BY AGE AND RACE/HISPANIC STATUS, 1990**

| Race/Hispanic Age Group | Educational Attainment (School Years Completed) | | | | | |
|---|---|---|---|---|---|---|
| | 0 - 4 | 5 - 8 | 0-8 | 9 - 12 | 13+ | Total* |
| **Age Group: 60 - 64** | | | | | | |
| Hispanic | 11.2 | 24.4 | 35.6 | 38.8 | 25.6 | 100.0 |
| NonHispanic White | 0.8 | 5.3 | 6.1 | 53.6 | 40.3 | 100.0 |
| NonHispanic Black | 9.2 | 22.3 | 31.4 | 49.2 | 19.4 | 100.0 |
| NonHispanic Other | 5.7 | 10.8 | 16.5 | 50.3 | 33.2 | 100.0 |
| **Total** | **2.3** | **8.2** | **10.5** | **51.9** | **37.6** | **100.0** |
| **Age Group: 65 - 74** | | | | | | |
| Hispanic | 12.8 | 25.8 | 38.6 | 38.3 | 23.1 | 100.0 |
| NonHispanic White | 0.9 | 6.7 | 7.7 | 55.5 | 36.9 | 100.0 |
| NonHispanic Black | 14.5 | 26.7 | 41.2 | 42.5 | 16.2 | 100.0 |
| NonHispanic Other | 10.3 | 13.4 | 23.7 | 46.1 | 30.2 | 100.0 |
| **Total** | **2.3** | **8.8** | **11.0** | **53.8** | **35.1** | **100.0** |
| **Age Group: 75 - 84** | | | | | | |
| Hispanic | 16.2 | 32.1 | 48.2 | 34.8 | 17.0 | 100.0 |
| NonHispanic White | 2.0 | 13.6 | 15.6 | 52.3 | 32.1 | 100.0 |
| NonHispanic Black | 24.2 | 33.0 | 57.2 | 31.0 | 11.8 | 100.0 |
| NonHispanic Other | 20.2 | 23.6 | 43.8 | 32.1 | 24.1 | 100.0 |
| **Total** | **3.6** | **15.3** | **18.9** | **50.5** | **30.5** | **100.0** |
| **Age Group: 85 and over** | | | | | | |
| Hispanic | 24.9 | 29.6 | 54.5 | 33.0 | 12.5 | 100.0 |
| NonHispanic White | 4.9 | 23.0 | 27.9 | 45.1 | 27.1 | 100.0 |
| NonHispanic Black | 34.7 | 32.0 | 66.7 | 25.0 | 8.4 | 100.0 |
| NonHispanic Other | 10.5 | 20.6 | 31.1 | 30.6 | 38.3 | 100.0 |
| **Total** | **7.1** | **23.7** | **30.9** | **43.6** | **25.5** | **100.0** |
| **Age Group: 60 and over** | | | | | | |
| Hispanic | 13.6 | 26.8 | 40.4 | 37.5 | 22.1 | 100.0 |
| NonHispanic White | 1.4 | 9.1 | 10.5 | 53.7 | 35.9 | 100.0 |
| NonHispanic Black | 15.5 | 26.7 | 42.2 | 41.7 | 16.1 | 100.0 |
| NonHispanic Other | 9.9 | 13.9 | 23.8 | 45.5 | 30.7 | 100.0 |
| **Total** | **2.9** | **11.1** | **13.9** | **52.0** | **34.0** | **100.0** |
| **Age Group: 65 and over** | | | | | | |
| Hispanic | 14.7 | 28.0 | 42.7 | 36.8 | 20.5 | 100.0 |
| NonHispanic White | 1.6 | 10.1 | 11.7 | 53.7 | 34.6 | 100.0 |
| NonHispanic Black | 18.6 | 28.9 | 47.5 | 38.1 | 14.5 | 100.0 |
| NonHispanic Other | 12.7 | 16.0 | 28.7 | 42.3 | 29.0 | 100.0 |
| Total | **3.1** | **11.9** | **15.0** | **52.0** | **33.0** | **100.0** |

**The 0-8 "school years completed" category (the sum of 0-4 and 5-8 categories) is not included in Total.*

**TABLE 8**

**NUMBER OF DISABLED ELDERLY RESIDENTS IN FLORIDA AT RISK OF BEING ILLITERATE BY AGE AND RACE/HISPANIC STATUS, 1990**

| | Educational Attainment (School Years Completed) | | | | | |
|---|---|---|---|---|---|---|
| Race/Hispanic Age Group | 0 - 4 | 5 - 8 | 0-8 | 9 - 12 | 13+ | Total* |
| **Age Group: 60 - 64** | | | | | | |
| Hispanic | 1,669 | 2,624 | 4,293 | 3,771 | 1,764 | **9,828** |
| NonHispanic White | 1,734 | 5,396 | 7,130 | 27,560 | 11,796 | **46,486** |
| NonHispanic Black | 1,414 | 3,199 | 4,613 | 4,523 | 1,042 | **10,178** |
| NonHispanic Other | 51 | 160 | 211 | 306 | 159 | **676** |
| **Total** | **4,868** | **11,379** | **16,247** | **36,160** | **14,761** | **67,168** |
| **Age Group: 65 - 74** | | | | | | |
| Hispanic | 3,528 | 5,216 | 8,744 | 5,903 | 2,702 | **17,349** |
| NonHispanic White | 4,622 | 16,615 | 21,237 | 80,217 | 34,601 | **136,055** |
| NonHispanic Black | 4,573 | 5,835 | 10,408 | 7,449 | 1,611 | **19,468** |
| NonHispanic Other | 74 | 90 | 164 | 419 | 320 | **903** |
| **Total** | **12,797** | **27,756** | **40,553** | **93,988** | **39,234** | **173,775** |
| **Age Group: 75 - 84** | | | | | | |
| Hispanic | 3,998 | 6,172 | 10,170 | 5,647 | 2,085 | **17,902** |
| NonHispanic White | 6,754 | 32,096 | 38,850 | 87,921 | 38,169 | **164,940** |
| NonHispanic Black | 5,049 | 5,744 | 10,793 | 4,159 | 742 | **15,694** |
| NonHispanic Other | 175 | 153 | 328 | 141 | 38 | **507** |
| **Total** | **15,976** | **44,165** | **60,141** | **97,868** | **41,034** | **199,043** |
| **Age Group: 85 and over** | | | | | | |
| Hispanic | 2,598 | 2,961 | 5,559 | 2,506 | 876 | **8,941** |
| NonHispanic White | 6,206 | 22,735 | 28,941 | 42,334 | 20,973 | **92,248** |
| NonHispanic Black | 2,990 | 1,943 | 4,933 | 1,219 | 314 | **6,466** |
| NonHispanic Other | 39 | 26 | 65 | 109 | 61 | **235** |
| **Total** | **11,833** | **27,665** | **39,498** | **46,168** | **22,224** | **107,890** |
| **Age Group: 60 and over** | | | | | | |
| Hispanic | 11,793 | 16,973 | 28,766 | 17,827 | 7,427 | **54,020** |
| NonHispanic White | 19,316 | 76,842 | 96,158 | 238,032 | 105,539 | **439,729** |
| NonHispanic Black | 14,026 | 16,721 | 30,747 | 17,350 | 3,709 | **51,806** |
| NonHispanic Other | 339 | 429 | 768 | 975 | 578 | **2,321** |
| **Total** | **45,474** | **110,965** | **156,439** | **274,184** | **117,253** | **547,876** |
| **Age Group: 65 and over** | | | | | | |
| Hispanic | 10,124 | 14,349 | 24,473 | 14,056 | 5,663 | **44,192** |
| NonHispanic White | 17,582 | 71,446 | 89,028 | 210,472 | 93,743 | **393,243** |
| NonHispanic Black | 12,612 | 13,522 | 26,134 | 12,827 | 2,667 | **41,628** |
| NonHispanic Other | 288 | 269 | 557 | 669 | 419 | **1,645** |
| Total | **40,606** | **99,586** | **140,192** | **238,024** | **102,492** | **480,708** |

**The 0-8 "school years completed" category (the sum of 0-4 and 5-8 categories) is not included in Total.*

**TABLE 9**

**PERCENTAGE OF DISABLED ELDERLY RESIDENTS IN FLORIDA AT RISK OF BEING ILLITERATE BY AGE AND RACE/HISPANIC STATUS, 1990**

| Race/Hispanic Age Group | Educational Attainment (School Years Completed) | | | | | |
|---|---|---|---|---|---|---|
| | 0 - 4 | 5 - 8 | 0-8 | 9 - 12 | 13+ | Total* |
| **Age Group: 60 - 64** | | | | | | |
| Hispanic | 17.0 | 26.7 | 43.7 | 38.4 | 17.9 | 100.0 |
| NonHispanic White | 3.7 | 11.6 | 15.3 | 59.3 | 25.4 | 100.0 |
| NonHispanic Black | 13.9 | 31.4 | 45.3 | 44.4 | 10.2 | 100.0 |
| NonHispanic Other | 7.5 | 23.7 | 31.2 | 45.3 | 23.5 | 100.0 |
| **Total** | **7.2** | **16.9** | **24.2** | **53.8** | **22.0** | **100.0** |
| **Age Group: 65 - 74** | | | | | | |
| Hispanic | 20.3 | 30.1 | 50.4 | 34.0 | 15.6 | 100.0 |
| NonHispanic White | 3.4 | 12.2 | 15.6 | 59.0 | 25.4 | 100.0 |
| NonHispanic Black | 23.5 | 30.0 | 53.5 | 38.3 | 8.3 | 100.0 |
| NonHispanic Other | 8.2 | 10.0 | 18.2 | 46.4 | 35.4 | 100.0 |
| **Total** | **7.4** | **16.0** | **23.3** | **54.1** | **22.6** | **100.0** |
| **Age Group: 75 - 84** | | | | | | |
| Hispanic | 22.3 | 34.5 | 56.8 | 31.5 | 11.6 | 100.0 |
| NonHispanic White | 4.1 | 19.5 | 23.6 | 53.3 | 23.1 | 100.0 |
| NonHispanic Black | 32.2 | 36.6 | 68.8 | 26.5 | 4.7 | 100.0 |
| NonHispanic Other | 34.5 | 30.2 | 64.7 | 27.8 | 7.5 | 100.0 |
| **Total** | **8.0** | **22.2** | **30.2** | **49.2** | **20.6** | **100.0** |
| **Age Group: 85 and over** | | | | | | |
| Hispanic | 29.1 | 33.1 | 62.2 | 28.0 | 9.8 | 100.0 |
| NonHispanic White | 6.7 | 24.6 | 31.4 | 45.9 | 22.7 | 100.0 |
| NonHispanic Black | 46.2 | 30.0 | 76.3 | 18.9 | 4.9 | 100.0 |
| NonHispanic Other | 16.6 | 11.1 | 27.7 | 46.4 | 26.0 | 100.0 |
| **Total** | **11.0** | **25.6** | **36.6** | **42.8** | **20.6** | **100.0** |
| **Age Group: 60 and over** | | | | | | |
| Hispanic | 21.8 | 31.4 | 53.3 | 33.0 | 13.7 | 100.0 |
| NonHispanic White | 4.4 | 17.5 | 21.9 | 54.1 | 24.0 | 100.0 |
| NonHispanic Black | 27.1 | 32.3 | 59.4 | 33.5 | 7.2 | 100.0 |
| NonHispanic Other | 14.6 | 18.5 | 33.1 | 42.0 | 24.9 | 100.0 |
| **Total** | **8.3** | **20.3** | **28.6** | **50.0** | **21.4** | **100.0** |
| **Age Group: 65 and over** | | | | | | |
| Hispanic | 22.9 | 32.5 | 55.4 | 31.8 | 12.8 | 100.0 |
| NonHispanic White | 4.5 | 18.2 | 22.6 | 53.5 | 23.8 | 100.0 |
| NonHispanic Black | 30.3 | 32.5 | 62.8 | 30.8 | 6.4 | 100.0 |
| NonHispanic Other | 17.5 | 16.4 | 33.9 | 40.7 | 25.5 | 100.0 |
| Total | **8.4** | **20.7** | **29.2** | **49.5** | **21.3** | **100.0** |

**The 0-8 "school years completed" category (the sum of 0-4 and 5-8 categories) is not included in Total.*

**TABLE 10**

**NUMBER OF NONDISABLED ELDERLY RESIDENTS IN FLORIDA AT RISK OF BEING ILLITERATE BY AGE AND RACE/HISPANIC STATUS, 1990**

| | Educational Attainment (School Years Completed) | | | | | |
|---|---|---|---|---|---|---|
| Race/Hispanic Age Group | 0 - 4 | 5 - 8 | 0-8 | 9 - 12 | 13+ | Total* |
| **Age Group: 60 - 64** | | | | | | |
| Hispanic | 6,927 | 14,722 | 21,649 | 22,749 | 14,206 | **58,604** |
| NonHispanic White | 3,636 | 27,965 | 31,601 | 274,561 | 204,434 | **510,596** |
| NonHispanic Black | 4,816 | 9,297 | 14,113 | 19,881 | 7,002 | **40,996** |
| NonHispanic Other | 310 | 488 | 798 | 2,157 | 1,383 | **4,338** |
| **Total** | **15,689** | **52,472** | **68,161** | **319,348** | **227,025** | **614,534** |
| **Age Group: 65 - 74** | | | | | | |
| Hispanic | 11,902 | 22,775 | 34,677 | 31,125 | 17,765 | **83,567** |
| NonHispanic White | 9,807 | 70,330 | 80,137 | 584,176 | 388,631 | **1,052,944** |
| NonHispanic Black | 8,972 | 15,304 | 24,276 | 23,114 | 7,722 | **55,112** |
| NonHispanic Other | 669 | 720 | 1,389 | 2,064 | 1,353 | **4,806** |
| **Total** | **31,350** | **109,129** | **140,479** | **640,479** | **415,471** | **1,196,429** |
| **Age Group: 75 - 84** | | | | | | |
| Hispanic | 6,724 | 12,550 | 19,274 | 12,503 | 6,081 | **37,858** |
| NonHispanic White | 9,814 | 69,092 | 78,906 | 274,962 | 172,749 | **526,617** |
| NonHispanic Black | 6,136 | 7,569 | 13,705 | 7,547 | 2,426 | **23,678** |
| NonHispanic Other | 352 | 292 | 644 | 481 | 376 | **1,501** |
| **Total** | **23,026** | **89,503** | **112,529** | **295,493** | **181,632** | **589,654** |
| **Age Group: 85 and over** | | | | | | |
| Hispanic | 1,044 | 1,597 | 2,641 | 1,983 | 753 | **5,377** |
| NonHispanic White | 4,163 | 18,440 | 22,603 | 39,519 | 25,022 | **87,144** |
| NonHispanic Black | 1,230 | 1,300 | 2,530 | 1,026 | 221 | **3,777** |
| NonHispanic Other | 5 | 17 | 22 | 55 | 19 | **96** |
| **Total** | **6,442** | **21,354** | **27,796** | **42,583** | **26,015** | **96,394** |
| **Age Group: 60 and over** | | | | | | |
| Hispanic | 26,597 | 51,644 | 78,241 | 68,360 | 38,805 | **185,406** |
| NonHispanic White | 27,420 | 185,827 | 213,247 | 1,173,218 | 790,836 | **2,177,301** |
| NonHispanic Black | 21,154 | 33,470 | 54,624 | 51,568 | 17,371 | **123,563** |
| NonHispanic Other | 1,336 | 1,517 | 2,853 | 4,757 | 3,131 | **10,741** |
| **Total** | **76,507** | **272,458** | **348,965** | **1,297,903** | **850,143** | **2,497,011** |
| **Age Group: 65 and over** | | | | | | |
| Hispanic | 19,670 | 36,922 | 56,592 | 45,611 | 24,599 | **126,802** |
| NonHispanic White | 23,784 | 157,862 | 181,646 | 898,657 | 586,402 | **1,666,705** |
| NonHispanic Black | 16,338 | 24,173 | 40,511 | 31,687 | 10,369 | **82,567** |
| NonHispanic Other | 1,026 | 1,029 | 2,055 | 2,600 | 1,748 | **6,403** |
| Total | **60,818** | **219,986** | **280,804** | **978,555** | **623,118** | **1,882,477** |

**The 0-8 "school years completed" category (the sum of 0-4 and 5-8 categories) is not included in Total.*

**TABLE 11**

**PERCENTAGE OF NONDISABLED ELDERLY RESIDENTS IN FLORIDA AT RISK OF BEING ILLITERATE BY AGE AND RACE/HISPANIC STATUS, 1990**

| Race/Hispanic Age Group | Educational Attainment (School Years Completed) | | | | | |
|---|---|---|---|---|---|---|
| | 0 - 4 | 5 - 8 | 0-8 | 9 - 12 | 13+ | Total* |
| **Age Group: 60 - 64** | | | | | | |
| Hispanic | 11.8 | 25.1 | 36.9 | 38.8 | 24.2 | 100.0 |
| NonHispanic White | 0.7 | 5.5 | 6.2 | 53.8 | 40.0 | 100.0 |
| NonHispanic Black | 11.7 | 22.7 | 34.4 | 48.5 | 17.1 | 100.0 |
| NonHispanic Other | 7.1 | 11.2 | 18.4 | 49.7 | 31.9 | 100.0 |
| **Total** | **2.6** | **8.5** | **11.1** | **52.0** | **36.9** | **100.0** |
| **Age Group: 65 - 74** | | | | | | |
| Hispanic | 14.2 | 27.3 | 41.5 | 37.2 | 21.3 | 100.0 |
| NonHispanic White | 0.9 | 6.7 | 7.6 | 55.5 | 36.9 | 100.0 |
| NonHispanic Black | 16.3 | 27.8 | 44.0 | 41.9 | 14.0 | 100.0 |
| NonHispanic Other | 13.9 | 15.0 | 28.9 | 42.9 | 28.2 | 100.0 |
| **Total** | **2.6** | **9.1** | **11.7** | **53.5** | **34.7** | **100.0** |
| **Age Group: 75 - 84** | | | | | | |
| Hispanic | 17.8 | 33.2 | 50.9 | 33.0 | 16.1 | 100.0 |
| NonHispanic White | 1.9 | 13.1 | 15.0 | 52.2 | 32.8 | 100.0 |
| NonHispanic Black | 25.9 | 32.0 | 57.9 | 31.9 | 10.2 | 100.0 |
| NonHispanic Other | 23.5 | 19.5 | 42.9 | 32.0 | 25.0 | 100.0 |
| **Total** | **3.9** | **15.2** | **19.1** | **50.1** | **30.8** | **100.0** |
| **Age Group: 85 and over** | | | | | | |
| Hispanic | 19.4 | 29.7 | 49.1 | 36.9 | 14.0 | 100.0 |
| NonHispanic White | 4.8 | 21.2 | 25.9 | 45.3 | 28.7 | 100.0 |
| NonHispanic Black | 32.6 | 34.4 | 67.0 | 27.2 | 5.9 | 100.0 |
| NonHispanic Other | 5.2 | 17.7 | 22.9 | 57.3 | 19.8 | 100.0 |
| **Total** | **6.7** | **22.2** | **28.8** | **44.2** | **27.0** | **100.0** |
| **Age Group: 60 and over** | | | | | | |
| Hispanic | 14.3 | 27.9 | 42.2 | 36.9 | 20.9 | 100.0 |
| NonHispanic White | 1.3 | 8.5 | 9.8 | 53.9 | 36.3 | 100.0 |
| NonHispanic Black | 17.1 | 27.1 | 44.2 | 41.7 | 14.1 | 100.0 |
| NonHispanic Other | 12.4 | 14.1 | 26.6 | 44.3 | 29.1 | 100.0 |
| **Total** | **3.1** | **10.9** | **14.0** | **52.0** | **34.0** | **100.0** |
| **Age Group: 65 and over** | | | | | | |
| Hispanic | 15.5 | 29.1 | 44.6 | 36.0 | 19.4 | 100.0 |
| NonHispanic White | 1.4 | 9.5 | 10.9 | 53.9 | 35.2 | 100.0 |
| NonHispanic Black | 19.8 | 29.3 | 49.1 | 38.4 | 12.6 | 100.0 |
| NonHispanic Other | 16.0 | 16.1 | 32.1 | 40.6 | 27.3 | 100.0 |
| Total | **3.2** | **11.7** | **14.9** | **52.0** | **33.1** | **100.0** |

**The 0-8 "school years completed" category (the sum of 0-4 and 5-8 categories) is not included in Total.*

**TABLE 12**

**LINK BETWEEN DISABILITY AND EDUCATIONAL STATUS OF OLDER FLORIDIANS, 1990**

**NONHISPANIC WHITE**

| Educational Attainment (School Years Completed) | NONDISABLED | DISABLED | TOTAL | NONDISABLED | DISABLED | TOTAL |
|---|---|---|---|---|---|---|
| | Number | | | Percentage Distribution | | |
| **Age Group: 60-64** | | | | | | |
| 0 - 4 | 3,636 | 1,734 | 5,370 | 67.7 | 32.3 | 100.0 |
| 5 - 8 | 27,965 | 5,396 | 33,361 | 83.8 | 16.2 | 100.0 |
| 0 - 8 | 31,601 | 7,130 | 38,731 | 81.6 | 18.4 | 100.0 |
| 9 - 12 | 274,561 | 27,560 | 302,121 | 90.9 | 9.1 | 100.0 |
| 13+ | 204,434 | 11,796 | 216,230 | 94.5 | 5.5 | 100.0 |
| **Total*** | **510,596** | **46,486** | **557,082** | **91.7** | **8.3** | **100.0** |
| **Age Group: 65-74** | | | | | | |
| 0 - 4 | 9,807 | 4,622 | 14,429 | 68.0 | 32.0 | 100.0 |
| 5 - 8 | 70,330 | 16,615 | 86,945 | 80.9 | 19.1 | 100.0 |
| 0 - 8 | 80,137 | 21,237 | 101,374 | 79.1 | 20.9 | 100.0 |
| 9 - 12 | 584,176 | 80,217 | 664,393 | 87.9 | 12.1 | 100.0 |
| 13+ | 388,631 | 34,601 | 423,232 | 91.8 | 8.2 | 100.0 |
| **Total*** | **1,052,944** | **136,055** | **1,188,999** | **88.6** | **11.4** | **100.0** |
| **Age Group: 75-84** | | | | | | |
| 0 - 4 | 9,814 | 6,754 | 16,568 | 59.2 | 40.8 | 100.0 |
| 5 - 8 | 69,092 | 32,096 | 101,188 | 68.3 | 31.7 | 100.0 |
| 0 - 8 | 78,906 | 38,850 | 117,756 | 67.0 | 33.0 | 100.0 |
| 9 - 12 | 274,962 | 87,921 | 362,883 | 75.8 | 24.2 | 100.0 |
| 13+ | 172,749 | 38,169 | 210,918 | 81.9 | 18.1 | 100.0 |
| **Total*** | **526,617** | **164,940** | **691,557** | **76.1** | **23.9** | **100.0** |
| **Age Group: 85 and over** | | | | | | |
| 0 - 4 | 4,163 | 6,206 | 10,369 | 40.1 | 59.9 | 100.0 |
| 5 - 8 | 18,440 | 22,735 | 41,175 | 44.8 | 55.2 | 100.0 |
| 0 - 8 | 22,603 | 28,941 | 51,544 | 43.9 | 56.1 | 100.0 |
| 9 - 12 | 39,519 | 42,334 | 81,853 | 48.3 | 51.7 | 100.0 |
| 13+ | 25,022 | 20,973 | 45,995 | 54.4 | 45.6 | 100.0 |
| **Total*** | **87,144** | **92,248** | **179,392** | **48.6** | **51.4** | **100.0** |
| **Age Group: 60 and over** | | | | | | |
| 0 - 4 | 27,420 | 19,316 | 46,736 | 58.7 | 41.3 | 100.0 |
| 5 - 8 | 185,827 | 76,842 | 262,669 | 70.7 | 29.3 | 100.0 |
| 0 - 8 | 213,247 | 96,158 | 309,405 | 68.9 | 31.1 | 100.0 |
| 9 - 12 | 1,173,218 | 238,032 | 1,411,250 | 83.1 | 16.9 | 100.0 |
| 13+ | 790,836 | 105,539 | 896,375 | 88.2 | 11.8 | 100.0 |
| **Total*** | **2,177,301** | **439,729** | **2,617,030** | **83.2** | **16.8** | **100.0** |
| **Age Group: 65 and over** | | | | | | |
| 0 - 4 | 23,784 | 17,582 | 41,366 | 57.5 | 42.5 | 100.0 |
| 5 - 8 | 157,862 | 71,446 | 229,308 | 68.8 | 31.2 | 100.0 |
| 0 - 8 | 181,646 | 89,028 | 270,674 | 67.1 | 32.9 | 100.0 |
| 9 - 12 | 898,657 | 210,472 | 1,109,129 | 81.0 | 19.0 | 100.0 |
| 13+ | 586,402 | 93,743 | 680,145 | 86.2 | 13.8 | 100.0 |
| **Total*** | **1,666,705** | **393,243** | **2,059,948** | **80.9** | **19.1** | **100.0** |

*The 0-8 "school years completed" category (the sum of 0-4 and 5-8 categories) is not included in Total.

**TABLE 13**

**LINK BETWEEN DISABILITY AND EDUCATIONAL STATUS OF OLDER FLORIDIANS, 1990**

**NONHISPANIC BLACK**

| Educational Attainment (School Years Completed) | NONDISABLED | DISABLED | TOTAL | NONDISABLED | DISABLED | TOTAL |
|---|---|---|---|---|---|---|
| | Number | | | Percentage Distribution | | |
| | | | **Age Group: 60-64** | | | |
| 0 - 4 | 4,816 | 1,414 | 6,230 | 77.3 | 22.7 | 100.0 |
| 5 - 8 | 9,297 | 3,199 | 12,496 | 74.4 | 25.6 | 100.0 |
| 0 - 8 | 14,113 | 4,613 | 18,726 | 75.4 | 24.6 | 100.0 |
| 9 - 12 | 19,881 | 4,523 | 24,404 | 81.5 | 18.5 | 100.0 |
| 13+ | 7,002 | 1,042 | 8,044 | 87.0 | 13.0 | 100.0 |
| **Total*** | **40,996** | **10,178** | **51,174** | **80.1** | **19.9** | **100.0** |
| | | | **Age Group: 65-74** | | | |
| 0 - 4 | 8,972 | 4,573 | 13,545 | 66.2 | 33.8 | 100.0 |
| 5 - 8 | 15,304 | 5,835 | 21,139 | 72.4 | 27.6 | 100.0 |
| 0 - 8 | 24,276 | 10,408 | 34,684 | 70.0 | 30.0 | 100.0 |
| 9 - 12 | 23,114 | 7,449 | 30,563 | 75.6 | 24.4 | 100.0 |
| 13+ | 7,722 | 1,611 | 9,333 | 82.7 | 17.3 | 100.0 |
| **Total*** | **55,112** | **19,468** | **74,580** | **73.9** | **26.1** | **100.0** |
| | | | **Age Group: 75-84** | | | |
| 0 - 4 | 6,136 | 5,049 | 11,185 | 54.9 | 45.1 | 100.0 |
| 5 - 8 | 7,569 | 5,744 | 13,313 | 56.9 | 43.1 | 100.0 |
| 0 - 8 | 13,705 | 10,793 | 24,498 | 55.9 | 44.1 | 100.0 |
| 9 - 12 | 7,547 | 4,159 | 11,706 | 64.5 | 35.5 | 100.0 |
| 13+ | 2,426 | 742 | 3,168 | 76.6 | 23.4 | 100.0 |
| **Total*** | **23,678** | **15,694** | **39,372** | **60.1** | **39.9** | **100.0** |
| | | | **Age Group: 85 and over** | | | |
| 0 - 4 | 1,230 | 2,990 | 4,220 | 29.1 | 70.9 | 100.0 |
| 5 - 8 | 1,300 | 1,943 | 3,243 | 40.1 | 59.9 | 100.0 |
| 0 - 8 | 2,530 | 4,933 | 7,463 | 33.9 | 66.1 | 100.0 |
| 9 - 12 | 1,026 | 1,219 | 2,245 | 45.7 | 54.3 | 100.0 |
| 13+ | 221 | 314 | 535 | 41.3 | 58.7 | 100.0 |
| **Total*** | **3,777** | **6,466** | **10,243** | **36.9** | **63.1** | **100.0** |
| | | | **Age Group: 60 and over** | | | |
| 0 - 4 | 21,154 | 14,026 | 35,180 | 60.1 | 39.9 | 100.0 |
| 5 - 8 | 33,470 | 16,721 | 50,191 | 66.7 | 33.3 | 100.0 |
| 0 - 8 | 54,624 | 30,747 | 85,371 | 64.0 | 36.0 | 100.0 |
| 9 - 12 | 51,568 | 17,350 | 68,918 | 74.8 | 25.2 | 100.0 |
| 13+ | 17,371 | 3,709 | 21,080 | 82.4 | 17.6 | 100.0 |
| **Total*** | **123,563** | **51,806** | **175,369** | **70.5** | **29.5** | **100.0** |
| | | | **Age Group: 65 and over** | | | |
| 0 - 4 | 16,338 | 12,612 | 28,950 | 56.4 | 43.6 | 100.0 |
| 5 - 8 | 24,173 | 13,522 | 37,695 | 64.1 | 35.9 | 100.0 |
| 0 - 8 | 40,511 | 26,134 | 66,645 | 60.8 | 39.2 | 100.0 |
| 9 - 12 | 31,687 | 12,827 | 44,514 | 71.2 | 28.8 | 100.0 |
| 13+ | 10,369 | 2,667 | 13,036 | 79.5 | 20.5 | 100.0 |
| **Total*** | **82,567** | **41,628** | **124,195** | **66.5** | **33.5** | **100.0** |

*The 0-8 "school years completed" category (the sum of 0-4 and 5-8 categories) is not included in Total.

**TABLE 14**

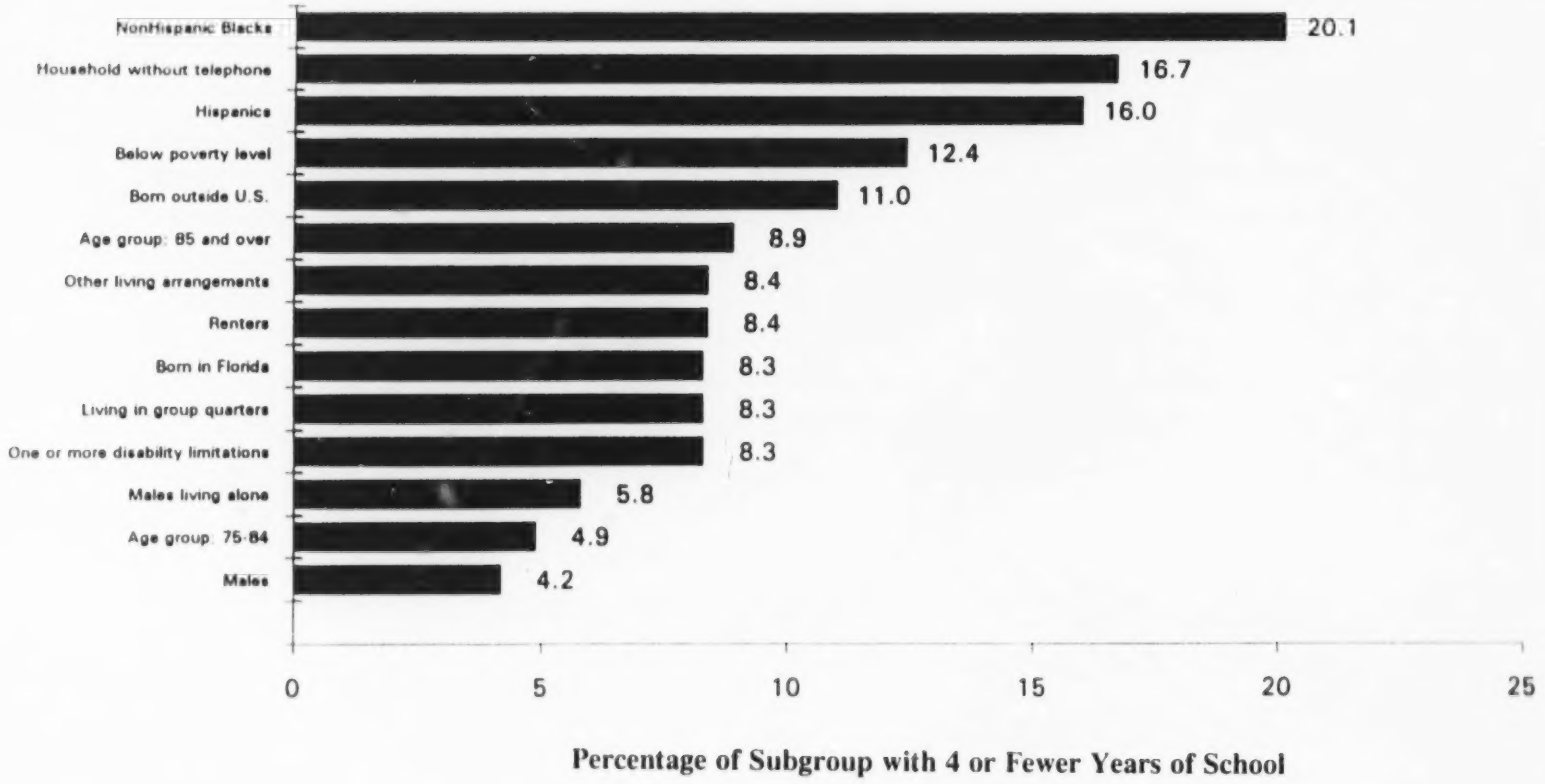
**LINK BETWEEN DISABILITY AND EDUCATIONAL STATUS OF OLDER FLORIDIANS, 1990**

**HISPANICS**

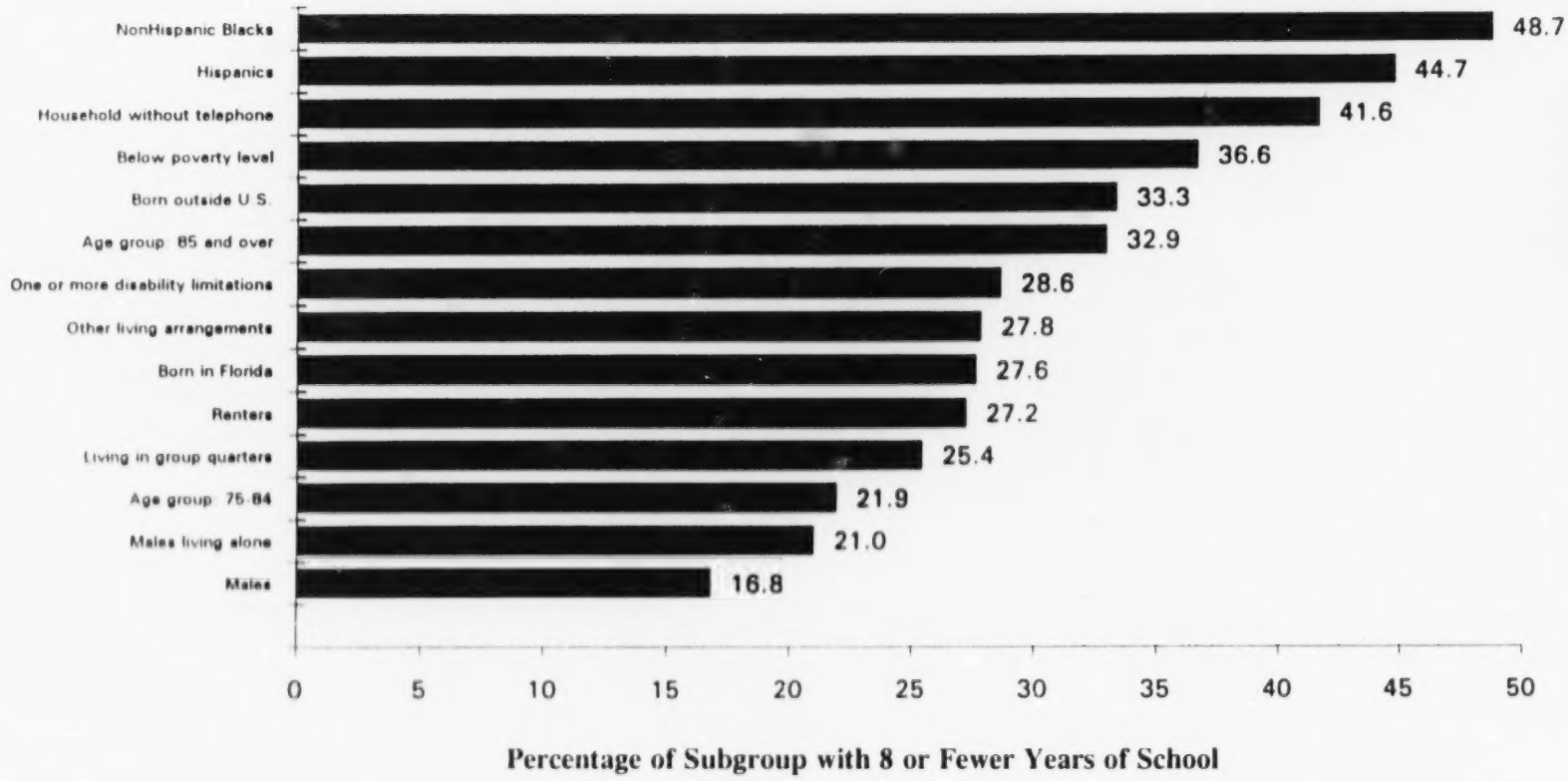
| Educational Attainment (School Years Completed) | NONDISABLED | DISABLED | TOTAL | NONDISABLED | DISABLED | TOTAL |
|---|---|---|---|---|---|---|
| | Number | | | Percentage Distribution | | |
| | | | **Age Group: 60-64** | | | |
| 0 - 4 | 6,927 | 1,669 | 8,596 | 80.6 | 19.4 | 100.0 |
| 5 - 8 | 14,722 | 2,624 | 17,346 | 84.9 | 15.1 | 100.0 |
| 0 - 8 | 21,649 | 4,293 | 25,942 | 83.5 | 16.5 | 100.0 |
| 9 - 12 | 22,749 | 3,771 | 26,520 | 85.8 | 14.2 | 100.0 |
| 13+ | 14,206 | 1,764 | 15,970 | 89.0 | 11.0 | 100.0 |
| **Total*** | **58,604** | **9,828** | **68,432** | **85.6** | **14.4** | **100.0** |
| | | | **Age Group: 65-74** | | | |
| 0 - 4 | 11,902 | 3,528 | 15,430 | 77.1 | 22.9 | 100.0 |
| 5 - 8 | 22,775 | 5,216 | 27,991 | 81.4 | 18.6 | 100.0 |
| 0 - 8 | 34,677 | 8,744 | 43,421 | 79.9 | 20.1 | 100.0 |
| 9 - 12 | 31,125 | 5,903 | 37,028 | 84.1 | 15.9 | 100.0 |
| 13+ | 17,765 | 2,702 | 20,467 | 86.8 | 13.2 | 100.0 |
| **Total*** | **83,567** | **17,349** | **100,916** | **82.8** | **17.2** | **100.0** |
| | | | **Age Group: 75-84** | | | |
| 0 - 4 | 6,724 | 3,998 | 10,722 | 62.7 | 37.3 | 100.0 |
| 5 - 8 | 12,550 | 6,172 | 18,722 | 67.0 | 33.0 | 100.0 |
| 0 - 8 | 19,274 | 10,170 | 29,444 | 65.5 | 34.5 | 100.0 |
| 9 - 12 | 12,503 | 5,647 | 18,150 | 68.9 | 31.1 | 100.0 |
| 13+ | 6,081 | 2,085 | 8,166 | 74.5 | 25.5 | 100.0 |
| **Total*** | **37,858** | **17,902** | **55,760** | **67.9** | **32.1** | **100.0** |
| | | | **Age Group: 85 and over** | | | |
| 0 - 4 | 1,044 | 2,598 | 3,642 | 28.7 | 71.3 | 100.0 |
| 5 - 8 | 1,597 | 2,961 | 4,558 | 35.0 | 65.0 | 100.0 |
| 0 - 8 | 2,641 | 5,559 | 8,200 | 32.2 | 67.8 | 100.0 |
| 9 - 12 | 1,983 | 2,506 | 4,489 | 44.2 | 55.8 | 100.0 |
| 13+ | 753 | 876 | 1,629 | 46.2 | 53.8 | 100.0 |
| **Total*** | **5,377** | **8,941** | **14,318** | **37.6** | **62.4** | **100.0** |
| | | | **Age Group: 60 and over** | | | |
| 0 - 4 | 26,597 | 11,793 | 38,390 | 69.3 | 30.7 | 100.0 |
| 5 - 8 | 51,644 | 16,973 | 68,617 | 75.3 | 24.7 | 100.0 |
| 0 - 8 | 78,241 | 28,766 | 107,007 | 73.1 | 26.9 | 100.0 |
| 9 - 12 | 68,360 | 17,827 | 86,187 | 79.3 | 20.7 | 100.0 |
| 13+ | 38,805 | 7,427 | 46,232 | 83.9 | 16.1 | 100.0 |
| **Total*** | **185,406** | **54,020** | **239,426** | **77.4** | **22.6** | **100.0** |
| | | | **Age Group: 65 and over** | | | |
| 0 - 4 | 19,670 | 10,124 | 29,794 | 66.0 | 34.0 | 100.0 |
| 5 - 8 | 36,922 | 14,349 | 51,271 | 72.0 | 28.0 | 100.0 |
| 0 - 8 | 56,592 | 24,473 | 81,065 | 69.8 | 30.2 | 100.0 |
| 9 - 12 | 45,611 | 14,056 | 59,667 | 76.4 | 23.6 | 100.0 |
| 13+ | 24,599 | 5,663 | 30,262 | 81.3 | 18.7 | 100.0 |
| **Total*** | **126,802** | **44,192** | **170,994** | **74.2** | **25.8** | **100.0** |

*The 0-8 "school years completed" category (the sum of 0-4 and 5-8 categories) is not included in Total.

## Age 60 and Older Florida Subgroups Most at Risk of Being Severely Illiterate, 1990



## Age 60 and Older Florida Subgroups Most at Risk of Being Illiterate, 1990



# Appendix II

**Interpretation of Tables Describing Risk of Illiteracy Among Florida Elderly Population in 1990**

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**Data Source and Variable Descriptions to Assess the Risk of Illiteracy Among Florida's Elderly Population Data Source**

The data for the accompanying tables is compiled from machine-readable data files of the Public Use Microdata Samples (PUMS). It is based on a 5% sample of the U.S. population who responded to long-form questionnaires administered for the 1990 U.S. Decennial Census. The 1990 PUMS data contain individual records of responses to a variety of housing and population inquiries. The 5% sample includes a separate file for each state and identifies most individual counties or county equivalents with 100,000 or more inhabitants. The file contains individual weights for each person and housing unit (in the sample) which when applied to the individual records, expand the sample to the total population in the state.

Data Reference: U.S. Census of Population and Housing, 1990: Public Use Microdata Samples U.S. (machine readable data files). Prepared by the U.S. Bureau of Census. Washington, DC: Bureau of the Census.Technical Documentation: U.S. Bureau of Census, 1993. The 1990 Census of Population and Housing, Public Use Micro data Samples, United States, Technical Documentation. Washington, DC: U.S. Bureau of Census.

# Variable Descriptions

### *Age*

The age of the person is designated as of April 1, 1990. Three nonelderly age groups were defined: under 25, 25-49, and 50-59. Four elderly age groups were defined: 60-64, 65-74, 75-84, and 85 and over. Additionally, two summary age categories were distinguished: age 60 and over and age 65 and over.

### *Sex*

Male or female.

### *Education Attainment*

Persons are classified according to the highest level (school year) of education completed or the highest degree received. Four categories of educational attainment (years of education) were distinguished: 0-4, 5-8, 9-12, and 13 and over. Additionally, one summary education category was distinguished: 0-8 years of schooling. Persons with eight or fewer years of education are considered at higher risk of being illiterate or functionally illiterate. Persons with four or fewer years of education are considered at higher risk of being severely illiterate or severely functionally illiterate.

### *Race/Hispanic Status*

Persons of Hispanic origin are those who classified themselves of Spanish/Hispanic origin (i.e., Mexican, Chicano, Puerto Rican, Cuban, or other Spanish/Hispanic subgroup). Race membership is also based on a self-identification report. Respondents can select from the following categories: white, black, and other races (i.e., American Indian, Eskimo, or Aleut, Asia or pacific Islander). These two inquiries together allowed

the distinction of four subgroups: Hispanics, NonHispanic Whites, NonHispanic Blacks, and other NonHispanic Races.

### *Living Arrangements*

Persons were classified into four categories: married couples, males living along, females living alone, and other living arrangements (two or more unmarried persons in household).

### *Poverty Status*

The total income of each family or unrelated individual in the sample was tested against the 1989 poverty threshold prescribed by the U.S. Office of Management and Budget. If the total income was less than the corresponding cutoff, the family or unrelated persons was classified as "below the poverty level."

### *Mobility or Personal Care Limitations*

This variable was based on two separate interview inquiries. Persons were identified as having a "mobility limitation" if they had a health condition that lasted for 6 or more months and which made it difficult to go outside the home alone. Persons were identified as having a personal care or self-care limitation status if they had a health condition that had lasted for 6 or more months and which made it difficult to take care of their personal needs, such as dressing, bathing, or getting around inside the home. Two subgroups of persons were distinguished: persons having either or both a mobility or personal care limitation; and persons having neither a mobility or personal care limitation.

### *Dwelling Tenure Status*

Persons were distinguished as owners, renters (whether or not they paid cash rent) or living in group quarters. All persons not living in households are classified by the Census Bureau as living in group quarters (including nursing homes and group homes).

### *Presence of Telephone*

Households were distinguished according to whether or not they had a telephone inside their house or apartment.

### *Place of Birth*

Persons were classified into three categories according to their place of birth: born in Florida, born in state other than Florida, and born outside U.S. including Puerto Rico, outlying areas, and in foreign countries.

# In Appreciation

This publication was produced by the Florida Council on Aging and edited by Margaret Lynn Duggar and Associates, Inc. The mission of the Florida Council on Aging is to enhance the quality of life for all older Floridians and promote a positive image of aging through advocacy, information sharing and education. We would like to thank the following people and organizations for their contributions to this publication:

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